Clinical Lecture
ON
CASES ILLUSTRATING SOME POINTS IN THE DIAGNOSIS AND TREATMENT OF PLEURITIC EFFUSION.

Delivered at the Middlesex Hospital,

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GENTLEMEN,—No apology is ever needed for taking up in a clinical lecture the subject of pleuritic effusion. Whether we regard its frequency, or the many interesting points presented in connexion with the question of diagnosis, or the all-important matter of treatment, we have brought before us a subject which in its many-sided bearings has few equals in the whole range of practical medicine. As it happens, I have had under my care recently several cases of pleural effusion, some of them resembling and some differing from each other; and I propose now to bring these before you so as to compare and contrast them, believing that they will be found to present points which you may profitably study in view of the fact that you are almost certain to meet with similar cases in your future practice.

CASE 1. *Large pleural effusion (left) of considerable standing; paracentesis, four pints and sixteen ounces of fluid removed; recovery, with shrinking of the affected side.*—The subject of the above title was a police constable, aged twenty-six. His family history was excellent. His father and mother had both died, but of diseases of the nervous system, at the ages of sixty-six and fifty-four respectively. He had two brothers and five sisters alive and healthy, none having, so far as he knew, suffered from any kind of lung disease. He had himself always been a temperate liver. Four months before coming under my care in the hospital he had had an attack of pleurisy, followed by cough and shortness of breath, for which he sought admission, as his condition had been gradually becoming worse. On admission (Nov. 8th) he was described as a robust, tall, healthy-looking man, complaining of pain in the left side and of a dry cough. The pain was felt all over the left side, being, perhaps, more correctly described as a sense of weight and uneasiness, and was aggravated when he turned over on the right side in bed. His temperature was 102·4°; pulse 120; respiration 21. Tongue moist and slightly coated. On examining the chest the left side was found to be universally dull on percussion, both back and front, with the exception of an area of triangular shape near the junction of the sternum and clavicle, where there was a certain amount of resonance. Below this the dulness extended across the middle line and encroached upon the right side of the chest to the extent of two inches. Movement in the affected side was much diminished and vocal vibration was abolished over the dull area. Faint bronchial breath sounds were heard towards the apex, being most marked in front. Elsewhere there was absolute silence on respiration. The right lung presented good resonance, and, except where encroached upon in front by the dulness coming from the left side, the breath sounds were loud and harsh; no adventitious sounds were heard. The heart's impulse was impalpable and invisible except in the epigastrium, where there was slight pulsation. The first sound was most distinctly heard over the ensiform cartilage; both sounds were normal. As regards the abdomen, the liver dulness extended about one inch and a half below the costal margin in the nipple line, and the lower border of the spleen could be felt on deep pressure. The urine was normal.

On the day after admission paracentesis was performed, the trocar being introduced in the sixth left interspace in the mid-axillary line, the patient lying on his back. Four pints and sixteen ounces of clear greenish-coloured fluid of a specific gravity of 1020, rich in albumen and of neutral reaction, were removed. His breathing became distressed towards the end of the tapping, and he was seized with a severe paroxysm of coughing, when the operation was concluded and the cannula withdrawn. On percussion now in the recumbent position the resonance over the left front was found to be good as far down as the nipple; the dulness to right of the sternum had disappeared, and harsh breath sounds were audible over the previously dull area. The vocal fremitus was also restored, and the heart's apex, judging by the distinctness of the first sound, had apparently come over about an inch towards the left. Posteriorly the resonance was fair down to the middle of the scapula, a corresponning change having also taken place in the other physical signs. In the evening the temperature was 103·6°; pulse 104; respiration 30. He had had no pain, but the cough had been rather troublesome, and was accompanied with frothy mucoid expectoration. Numerous mucous râles were heard over the upper part of the left front. Next day his breathing became more comfortable, but the evening temperature still remained high (103·8°), that of the morning having been only 100·4°. A conspicuous increase in the amount of urine excreted was noted for a few days after the tapping, forty-eight, sixty-four, and seventy-seven ounces being measured on three consecutive days.

About a week later (Nov. 16th) the following note was made: "Resonance is rather less than normal over the upper half of the left back; completely impaired from the middle of the scapula downwards. In front there are fair resonance and breath sounds down to the nipple line. At the posterior apex the breath sounds are of a tubular character. The heart's apex is still indistinguishable, but the sounds are loudest a little to the left of the ensiform cartilage. Fremitus is well marked over the left front, and also over the upper half of the left back. Whispered voice sounds are well heard over the dull area."

Further progress was marked by the note made after the lapse of another week, which stated that resonance was good in front to below the nipple; behind not so good, but not quite dull, except for about three inches at the extreme base; breath sounds being faintly heard down to this level.

About a fortnight later (December 10th) marked flattening was noted at the left anterior apex; the resonance was fair, however, the breathing being bronchial and the expiration prolonged. Posteriorly the resonance was impaired below the mid-scapular region. The breath sounds were distinctly audible as far down as the inferior angle of the scapula. The first heart's sound was most distinct in the fifth interspace one inch and a half internal to the nipple line. There was some drooping of the left shoulder; no cough or pain. He was discharged a few days later in this condition. Regarding temperature, I may say that it remained febrile, even in the morning, for about ten days after the tapping, and scarcely reached the normal at night during the whole period of his stay in the hospital. With this he had occasional sweating at night, but did not lose weight.

The foregoing case exhibits conspicuously all the most important diagnostic signs of pleural effusion—to wit, dulness on percussion, abolition of tactile fremitus, and displacement of organs. There being no room for nice refinements in diagnosis, its chief interest and usefulness lie in the matter of treatment. You will remember that a quantity of the fluid in the man's pleura was removed by paracentesis the day after his admission into hospital, the first time I saw him. My reason for proceeding at once to operative interference was that from the history it was apparent that the lung had been compressed for a considerable time, and every additional day of compression diminished to some extent the prospect of a full re-expansion of the lung. How completely such fears were justified, even although relief was given at once, appears from the fact to which I have called attention that the upper part of the affected side in front presented ultimately marked flattening, and that the shoulder drooped from shrinking of the side. I should add that the base of the affected side was blistered some days after the tapping; and this, I think, is good practice generally. There are objections to blistering in the first instance, in presence of a large effusion, to which I shall refer later on.

CASE 2. *Recent pleural effusion (right); paracentesis; recovery.*—My second case does not differ greatly, except in one important particular, from the one I have just narrated. The patient was a man, thirty-six years of age, a porter by occupation, and rather given to alcoholic indulgence. He stated that his health had always been good up to his present illness, which began about a fortnight before he came under observation, with pain in the front of his chest

on the right side, accompanied by cough and difficulty of breathing. The cough was most troublesome when he lay on his left side. On admission (Nov. 12th) his pulse was 96; temperature 101°; respiration 28. Tongue coated and tremulous. He was described as a well-nourished man of short stature, of an alcoholic appearance, complaining of shortness of breath and cough. On examining his chest the whole of the right front was found to be dull on percussion, the dulness passing across towards the left side to the extent of one inch and a half opposite the mid-sternal region. Breath sounds were heard over the dull area, faint and of a tubular character, except at the apex, where they were well marked. The expiratory murmur was prolonged. Vocal vibration was scarcely perceptible. The right back was also dull, vocal vibration being abolished except about the interscapular region. Breath sounds were heard, distant and of a tubular quality, with nasal voice sound. Resonance was good over the opposite lung, both in front and behind, the breath sounds being harsh and accompanied by some rhonchus. The heart's maximum impulse was seen and felt in the sixth interspace just outside the nipple line, the sounds being normal. The upper border of liver dulness could not be delimited, but the lower border came nearly two inches below the costal margin in the nipple line. The urine was normal. Whispered voice sounds were well heard over the dull side both back and front. Expectoration was abundant, mucoid and frothy.

No change having taken place in the physical signs under medicinal treatment during a week's stay in the hospital, he was tapped (Nov. 9th) in the sixth interspace in the mid-axillary line, and three pints five ounces of greenish-coloured serous fluid evacuated, having a specific gravity of 1025, of neutral reaction and solidifying on boiling. After the operation fair resonance on percussion was found over the whole of the right front and down to the level of the puncture as the patient lay on his back. Breath sounds also were well heard, and there were no adventitious sounds and no troublesome cough. When sitting up the back was nowhere absolutely dull, although the resonance was considerably impaired, and feeble breath sounds were everywhere audible with a few friction-like creaks towards the base, on deep inspiration. The evening temperature was 102·2°. In three days he was allowed to get up. On the fourth day after the tapping (Nov. 23rd) the breath sounds in the front were accompanied by a few creaking sounds on deep inspiration; the area of liver dulness was not found to come below the costal margin, and the heart's first sound was heard most distinctly in the nipple line, the impulse being impalpable. His appetite was improved and his tongue clean. Temperature was still moderately febrile, averaging about 100°. The creaking sounds over the right front noted above developed in two or three days (Nov. 26th) into coarse leathery friction, unaccompanied by pain. A blister was applied to the right back about this time. His temperature now went down to about normal, sometimes a degree more, sometimes a degree less, and his progress in convalescence was uninterrupted although not very rapid.

A note made after the lapse of a fortnight (Dec. 10th) is as follows: "Temperature 98°; pulse 104. No friction is heard now over the right front. The resonance is fair down to within an inch of the nipple, and much impaired below that level. Over the right back it is impaired everywhere, but most markedly so at the base. Breath sounds are audible all over the back, faint, and of rather a tubular character. A few sonoro-sibilant sounds are also heard here. The first heart's sound is most clearly heard in the nipple line. The breathing over the right front is very feeble." A few days later he was discharged.

At first sight this case seems like a counterpart of the other, with the exception that here the right side was involved. But in view of treatment there was this point of difference, that whereas in Case 1 the fluid had for a long time remained in the pleura, exerting compression on the lung, and bringing about a state of matters out of which complete re-expansion of the lung could hardly be looked for, and, in fact, did not take place, in Case 2 the trouble had only existed for a fortnight, and I thought it well to make trial of rest, nursing, and medicinal remedies before proceeding to paracentesis. As regards blistering, I have no great faith in its efficacy in the presence of a large effusion, except as an adjunct to paracentesis. At the least, it seems to me to involve a waste of time. To warrant you in expecting any result from it, it must be carried out severely and persistently; and done in this way it involves to the patient a serious amount of irritation and positive pain, not to say loss of sleep. Another objection to it before paracentesis is that it renders the skin very tender and may greatly increase the discomfort of paracentesis, when the latter becomes inevitable.

There are three conditions which I would say call for tapping, but with varying degrees of urgency, and the objects with which we resort in each case to operative measures may be thus stated:—(1) To avert death; (2) to avert danger; and (3) to expedite a cure.

With regard to the first of these, if you find a patient in whom a rapid effusion has taken place, with quick breathing and distressing dyspnœa—one pleura nearly full, perhaps, and the heart displaced—tap him at once. Every hour's delay is fraught with imminent danger. Even if paracentesis were obnoxious to the dangers which some see in it, there would be no room for hesitation here. But in the second case we may suppose that the effusion, although as great in amount, has taken place slowly, and there may only be discomfort in breathing on exertion. Here again, if the effusion be extreme in amount, and especially if the case be one of left-sided pleurisy, I would still say remove some of the fluid. The dangers are not to be compared with those of the previous supposed case, but they are not absent altogether, for something may go wrong with the other lung, or the heart may be so much displaced as to induce thrombosis from nipping of some of the large vessels, and fatal syncope. In the third case, where the effusion, although perhaps only half filling the pleura, persists for some weeks, showing no tendency to diminish, you may very properly resort to paracentesis in order to shorten the duration of the case, and so lessen the risk of collapse of a portion of the lung.

With regard to the spot chosen for puncture, you may take it that the fifth or sixth interspace, according to circumstances, in the mid-axillary line is as good as any. I have several times seen chests tapped in the line of the inferior angle of the scapula without fluid being struck, a different result ensuing when a second attempt was made in the axillary region. Fraentzel also states that this is not an uncommon event, and the most obvious explanation is that when the posterior puncture is made it is at a lower level, where the cannula is more likely to be entangled in flakes of coagulated fibrin adherent to the wall of the thorax.

Then, as regards the course of the operation, I should say that it is best to remove the fluid very slowly. It is not possible, even if it were desirable, to remove it all, but you can withdraw more with greater comfort to the patient if the withdrawal is done very gradually.

Paracentesis is feared by some on account of the supposed risk of its being the means of changing a simple serous effusion into a purulent one. It is difficult to see how this can happen from the mere removal of some of the fluid. It may possibly result from the use of unclean instruments, but for this there is no excuse, and it would not form the ground of any valid objection to the operation. As a matter of fact, I have never seen it occur, and it may very fairly be suggested that the cases where it has happened were doomed to become empyemata whether they were tapped or not.

One thing more I would say in connexion with the indications for tapping—namely, that you need not be deterred, as has sometimes been said, by a high temperature. You may practically disregard temperature altogether, for I believe you will almost always, in the case of serous effusion at least, find the temperature to fall after removal of fluid.

CASE 3. *Pleurisy of left side, with moderate effusion; treatment by tonics, iodide of potassium, cod-liver oil, and blistering; rapid recovery.*—The patient here was a male, aged thirty-two, a porter, who came into the hospital on Jan. 2nd, 1885. He states that he had been ailing for about six weeks, and complained of cough, shortness of breath on exertion, and occasional night sweats, with some pain in the left side. On admission his temperature was only 97·8°; pulse 76; respiration 20. I may state briefly that he presented all the more important signs of a very moderate effusion, and as he was quite comfortable while at rest, and I knew that the effusion was not increasing from having seen him previously in the out-patient department, his case seemed a suitable one for less active treatment than those previously recorded. He was accordingly given quinine, iron, and iodide of potassium, with a blister to the left posterior base, and in a few days he began to manifest improvement. A week after

admission it was noted that there was less impairment of resonance, and the breath sounds could be faintly heard down to the extreme base. After eight days more he was discharged convalescent, the breath sounds towards the base being still less than normal, and the resonance somewhat impaired, but otherwise well and comfortable.

CASE 4. *Pleurisy of right side with slight effusion; strapping of side for the relief of pain; treatment otherwise by tonics, iodide of potassium, and cod-liver oil; rapid improvement.*—This case was also that of a male, twenty-eight years of age, a bootmaker by occupation, of pasty complexion and anxious expression, who was admitted about the same time as the last, complaining of a sharp shooting pain in the right side of his chest, aggravated by deep breathing. His temperature was 100·2°; pulse 80, of pretty good quality; respiration 24, shallow and catching. Friction sounds were very plainly heard over the lower third of the right lung, with some impairment of resonance. The chief thing to deal with in this case being the pain from which he suffered, strapping was applied to the right side, and this gave him speedy relief. A slight amount of effusion took place; his temperature fell, and he became rapidly convalescent. He was discharged ten days after admission free from cough or pain, and with nothing to suggest the attack through which he had passed except some slight impairment of resonance at the extreme right base, with diminished breathing and decrease of vocal sounds. The medicinal part of the treatment consisted mainly of quinine and iron with cod-liver oil, and a cough mixture while cough was a prominent symptom.

This last mentioned case introduces us to an element which was not marked enough in any of the other cases to require treatment—I mean the catching pain. This is a symptom which is often much more troublesome than it was even here. It was relieved in our case by the strapping which kept the inflamed pleural surfaces comparatively at rest. But where it is very intense I know of nothing which is so speedily followed by relief as the application of a couple of leeches. I have made no account of what I may call the minor signs of pleural effusion, because they are all comparatively unimportant, and all of them probably never present in the same case. There is one sign, however, which occupies a kind of middle position between these and the three chief signs referred to in connexion with Case 1—namely, abolition of breath sounds. This sign was conspicuously absent in Case 2, in which breathing was heard all over the affected side notwithstanding the fact proved by the tapping that the pleura contained several pints of fluid.

In any case where you are in doubt as to the presence of fluid (and such cases must sometimes occur), you have always an *experimentum crucis* to fall back upon, that of exploring with a hollow needle attached to some kind of syringe. I would recommend you to keep one for the purpose, and use it for nothing else, the needle being slightly larger than those generally used for hypodermic injection. If the fluid should happen to be thick pus, it may not be found to run through a very small needle, and your doubts, instead of being resolved, may be intensified. It should be scrupulously cleaned after use by repeated washings with Condy's fluid or some similar solution, especially after exploring an empyema. Even if no fluid be present, its employment will do no harm beyond the pain of the prick. Its value was strikingly displayed in the case to which I shall next ask your attention.

CASE 5. *Empyema in a child with retraction of the affected side; difficulty of diagnosis from physical signs alone; indolorous pus obtained on exploration; paracentesis; improvement; further exploration, fetid pus obtained; free opening and drainage; recovery.*—Louisa E. B——, four years of age, was admitted to the Northumberland Ward on Jan. 9th last. She is the only child of her parents, both of whom are alive and healthy. Eight weeks before admission she was attacked by inflammation of the lung, according to the mother's account. She had a bad cough for the first four weeks, and since then she has been gradually getting thinner and weaker and more listless, her appetite being also very bad. On admission her temperature was 98°; pulse 100, and of fair quality; respiration 26; tongue slightly furred. She was a pallid, pasty, emaciated child, complaining of loss of appetite, weakness, and slight cough. The right side of the chest was retracted and flattened in front, and did not move at all on respiration. There was marked dulness on percussion below the second rib in front and below the spine of the scapula behind. Faint distant breath sounds of tubular quality were heard over the greater part of the dull area, being absolutely inaudible perhaps only in the axillary region. At the apex of the lung breath sounds were well marked; expiration prolonged. On the left side the respiratory movement was exaggerated as well as the breath sounds, and the percussion note was clear. The heart's maximum impulse was seen and felt in the fifth left interspace outside the nipple line, the sounds being perfectly normal. There was nothing abnormal observed about the abdomen, the area of liver dulness in particular not being depressed. The urine was normal The finger ends exhibited the faintest tendency to clubbing. There was no diarrhœa or vomiting. A cyrtometric tracing taken of the chest about the nipple level showed well the difference in size and shape of the two sides of the chest. She was put upon cod-liver oil and steel wine with a nutritious diet, and, as her case presented no urgency, she was simply watched and re-examined from time to time to see if any change in the physical signs should take place. The temperature rarely exceeded the normal, having only twice reached 100° in ten days, and it was occasionally subnormal. In order to clear up the diagnosis, an exploratory puncture was made (Jan. 21st) in the fifth right interspace in the anterior axillary line, and pus of a light-greenish colour and odourless was obtained. Having established conclusively the presence of pus, it was determined to remove it by means of the aspirator, washing out the pleural cavity with a warm solution of Condy's fluid. This was done on Jan. 23rd while the child was under the influence of chloroform, the puncture being made in the fourth interspace in the anterior axillary line. About four ounces of pus were withdrawn, which, towards the end of the operation, was found to be slightly blood-stained. The physical signs were not very much changed, the most observable being that the breath sounds were a little more distinctly heard. In the evening the temperature was 104·2°; pulse 140; respiration 52. She passed a good night; but on the following morning it was noted that she had spat up a little bright blood, and during the day she was much troubled with vomiting. This vomiting continued more or less for three days, during which time the temperature varied between 98·8° and 103·6°, the highest records being at 10 P.M. The cough was rather troublesome—indeed, it was this that was probably mainly responsible for the vomiting. Sweating also was noticed at intervals for several days, the physical signs remaining much the same as before. At the same time she slept well, and had a fair appetite. By Feb. 4th the temperature was but little over the normal, and the cough was better; and on Feb. 10th it was noted that resonance over the right back and front was not so much impaired as formerly, and breath sounds were fairly heard over the back, but both resonance and breath sounds were still much impaired in the axillary region, and she retained her pasty appearance, and did not obviously gain flesh. Accordingly, a few days later two exploratory punctures were made in a further search for pus, one at the seat of the former puncture, and a second two inches further back, this being the area of greatest dulness; but no fluid was found, and the impression conveyed by the movements of the needle was that its point was in solid lung and not in a cavity. About this time it was also noted that the heart's apex was within the nipple line.

Notwithstanding the negative result of these explorations, and as she did not improve as I thought she ought to have done unless pus were still present, I made another exploratory puncture on March 12th, in the seventh interspace behind the angle of the scapula, and withdrew a syringeful of very offensive pus. It seemed obvious now that the proper course was to freely incise and drain the pleural cavity, and accordingly, on March 14th, this was done by Mr. Morris at my request, an inch and a quarter of the eighth rib in the line of the angle of the scapula being removed and two drainage-tubes introduced after the evacuation of about four ounces of very fetid pus. The pleural sac was irrigated with a weak warm solution of iodine, and the wound enveloped in cotton-wool and gauze. In the evening the temperature rose to 101·6°, and remained more or less febrile for five days, during which there was a considerable amount of pus discharged. After this the discharge diminished daily, the temperature became regularly normal, and the child gained flesh and colour rapidly. She was put into a warm bath containing Condy's fluid every day, so that she washed out her own chest after the

manner recommended by Dr. Barlow and Mr. Parker.[1] By April 17th the discharge was so slight that the drainage-tube was then removed and the wound allowed to close. A note made about three weeks later stated that the child was fat and of an excellent colour. There was very slight drooping of the right shoulder; resonance and breath sounds were somewhat impaired at the extreme base of the right lung, elsewhere both were fairly normal. The heart's maximum impulse was apparent just under the nipple in the fourth interspace, the sounds being normal. In this condition she was discharged on May 19th.

The first point to which I wish to direct attention, in connexion with this case, is the difficulty which beset the question of diagnosis apart from the crucial test of exploring the pleural cavity. I do not here refer specially to the retraction of the affected side, which in such cases is not very uncommon, but to the totality of the symptoms and physical signs, positive and negative, including the temperature, the absence of œdema of the affected side, of enlargement of superficial veins, of sweating, diarrhœa, and vomiting, these latter, however, appearing after some of the pus was removed. Two explanations of the case seemed possible, between which it was hard to choose: either that a simple serous effusion had existed, which becoming absorbed had left the lung partially collapsed and the chest wall retracted; or, as was ultimately proved, that the case was, notwithstanding doubtful points, one of empyema. In the latter case I presume that the retraction of the side must be explained, in the same way as in the event of a simple serous effusion—namely, that the more absorbable part of the fluid had been absorbed and left the lung in a state of collapse, and it was probably because the pus was perfectly sweet that this absorption had not given rise to diarrhœa and sweating. From the first, however, I rather inclined to the diagnosis of empyema, for these reasons: the tubular breathing over the dull area was less well-marked than might have been expected, apart from the intervention of fluid between the lung and the chest wall; and the pallid and pasty appearance of the child, and the apparent clubbing of the finger ends (although this last was exceedingly slight, so slight, indeed, that at first I was in doubt as to whether one could say that clubbing was present at all), were chiefly suggestive of empyema. Even in presence of these signs, however, I hesitated to make an absolute diagnosis till the use of the exploring needle resolved all doubts. Regarding the treatment of such cases we have a choice of two methods: aspiration, which may have to be two or three times repeated, or a free opening and drainge. The former was decided upon here in the first instance as being a less formidable proceeding, leaving the free opening in reserve if it should prove to be necessary.

Treatment by aspiration is more applicable in the empyema of children than it is in that of adults; but, after all, children, as a rule, do so well where the method of free incision has been adopted that one is sometimes left in doubt whether it would not be as well to have recourse to it at first.

With respect to other than operative treatment in such cases, cod-liver oil and iron in some form are our mainstay. When this child's temperature became high and sweating came on, I ordered her quinine and dilute sulphuric acid, and when troubled with the vomiting the cod-liver oil was discontinued. When the cough became a prominent symptom, she had a cough mixture containing a small quantity of ipecacuanha wine, tincture of squills, aromatic spirit of ammonia, and glycerine, which seemed to do her some good. But the chief thing, of course, is to get rid of the pus.

In comparing the methods of aspiration and free opening for its evacuation, I would add that the former is only applicable where, as in the present case at first, the pus was sweet. If it should prove to be fetid, as it latterly became, the proper course is to have it removed by a free opening and the pleura efficiently drained without delay.

[1] Notes on Pleuritic Effusion in Childhood, read in the Section of Medicine at the annual meeting of the British Medical Association in Manchester, August, 1877.

A LARGE number of workmen at Montreal have struck work rather than submit, at the order of their employers, to vaccination. The city has been lately visited by a severe small-pox epidemic, and the order referred to was issued with the view of stamping out the disease.

UNILATERAL CONVULSION AND PARALYSIS OF THE ARM AND FACE,

THE RESULT OF A LOCALISED CORTICAL LESION.

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Bronchiectasis; Aortic Stenosis; Abscess of the Brain.

THE doctrine of cerebral localisation rests on well-assured pathological foundations, and is constantly receiving confirmation. Thanks to the labours of Hughlings Jackson, Hitzig, Ferrier, and a host of subsequent observers, motor centres for such parts as the arm, leg, and face can now be more or less accurately localised; but the exact limits of these centres cannot yet be said to have been fixed for the brain of man. For the present, therefore, every case of circumscribed cortical lesion associated with motor disturbance is of value, and ought to be put on record. I have to thank my colleague Dr. F. T. Roberts for his kind permission to make use of the notes of the following case, which was admitted into the Brompton Hospital under his care on Dec. 31st, 1883. The notes are by Mr. Arthur D. Roe, M.B., clinical assistant.

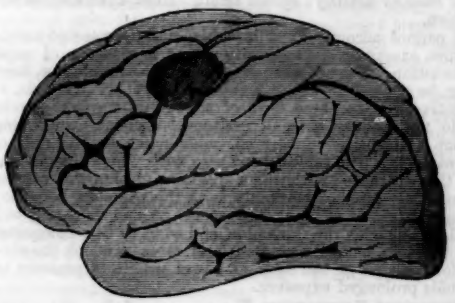
Chas. H——, aged thirty-three, French polisher, was admitted on the above date. Family history good. Has drunk a good deal of late. Never had syphilis. Eight months ago he was seized with pains all over him, and soon afterwards began to suffer from cough, accompanied by expectoration and pain in the right side, and he spat up some blood. The cough has been getting worse lately, and the sputum has been tinged with blood at times, but there has been no hæmoptysis of any consequence since the commencement of his illness.

Present condition.—Face pale and thin. Pupils dilated. Fingers slightly clubbed. No marked general emaciation. Breath short only when he coughs. Sputum frothy and tenacious. Pulse feeble and compressible. Appetite good. Tongue fairly clean. Bowels regular. Thorax fairly well formed. Right shoulder lower than left. Flattening under right clavicle and in mammary region. Expansion not good, especially on left side. Percussion impaired on right side from apex to fifth rib, and in scapular region. Resonance normal on left side. Breath sounds harsh over both lungs, but in the second and third right intercostal spaces towards the sternum there is cavernous breathing and râles with pectoriloquy. Moist crackling râles all over right front and axilla. There is pulsation in the right second and third spaces close to the sternum, and a purring tremor is felt here and under the clavicle. Apex beat of the heart in the fifth space in the left nipple line. Cardiac dulness slightly increased in all directions. A loud systolic murmur is heard all down the sternum, and faintly at the apex. The murmur is loudest in the second space at the right side near the sternum. The case was regarded as one of aortic aneurysm.

Progress of the case.—For three months the patient continued to suffer from troublesome cough and profuse expectoration, which were the only constant symptoms. During the greater part of this time he was tr ated with iodide of potassium. The physical signs remained unaltered throughout.—Jan. 24th: Hæmoptysis (about six ounces); expectoration muco-purulent.—Feb. 15th: Feels better; no change in physical signs.—21st: Pulsation less marked.—March 20th: Expectoration profuse the last two days.—23rd: Slight hæmoptysis during a fit of coughing.—April 1st: This evening at 9.15 he became unconscious, and foamed at the mouth; face contorted; mouth open, and dragged over to the right side; much struggling during the attack. The right arm was first seized with tremors, and then was spasmodically contracted. The pupils equal and dilated during the attack, and afterwards. The tongue after the attack protruded, rather to the left (?). Shortly after the attack, when consciousness had returned, the patient's utterance was rather thick and difficult. Half an hour later he had another convulsive attack, not quite so violent as the first, lasting about five minutes, and beginning with tremors in the right arm, and attended by the same contortion of the mouth. The patient did not call out during the attack.—2nd: Another attack at 4 A.M., and again at 5.15 A.M.; character of attacks the same; 11 A.M., mouth

drawn to the right. Tongue protruded to left (?). Cannot whistle well. Right arm feels heavy and powerless. Sensation unimpaired; consciousness perfect.—3rd: Right arm feels powerless. Sensation still seems slightly impaired; no further attacks.—4th: Another attack at 12.15 A.M., commencing with tremors of right arm; but, unlike the previous attacks, which rapidly attained a climax of convulsive movement, this one lasted a long time, the movements preserving the same character and force. Under the influence of hypodermic injection of morphia he quieted down about 1.30 A.M. 6 A.M.: Another slight attack, in which the patient fell out of bed. 10 A.M.: A short attack.—5th: Two slight attacks after breakfast and dinner.—6th: Right arm quite powerless this morning. Sensation perfect.—8th: Is able to walk with difficulty. Speech slow, difficult, and indistinct.—9th: This morning the patient is barely conscious, and has been unable to answer questions. Right side of face blank. Mouth now drawn to left. Left eyelid drooping; pupils equal. Cannot protrude tongue. Right arm completely paralysed, also right leg. There appears to be some anæsthesia on right side. Knee-jerk increased on right side. No ankle clonus. No rise of temperature during last week. Temperature subnormal last three days. Patient is unable to take food this morning.—10th: Lies in a semi-comatose state. Has not spoken for the last two days. Urine passed involuntarily. Right pupil rather larger than the left. Temperature 97° F.—11th: Patient in much the same condition; partially conscious. There seems to be a quantity of phlegm in his throat which he cannot expectorate. Respiration snoring. Temperature subnormal. Pupils nearly equal and contract to light.—12th: Respiration rapid and shallow. The patient gradually sank and died the same night.

Post-mortem examination.—Brain—calvaria: membranes and vessels healthy. In the position of the ascending frontal and posterior extremity of the middle frontal convolutions on the left side there was a distinct greyish-yellow



discolouration with flattening of the surface. The texture of the brain generally was soft, but in this region it was decidedly softer than elsewhere. On further examination, it was found that there was an abscess the size of a large walnut in the ascending frontal convolution, encroaching upon the hinder end of the middle frontal convolution, and situated about two inches from the great median fissure. Just below this abscess there was another smaller one, of the size of a bean. Both abscesses contained greenish gelatinous pus. Their walls were tough, but there was no distinct capsule. The substance of the middle frontal convolution for about one inch in front of the abscess was of a yellowish colour and softened. The white matter between the abscess and the lateral ventricle was reduced to a mere pulp, and the white substance underlying the left ascending parietal convolution was in a similar state, though the convolution was not itself softened. Both ventricles contained a little turbid blood-stained fluid. The rest of the brain was healthy to the naked eye. The position of the abscess is marked in the above diagram. On opening the chest the left lung was distended, the right apex much retracted uncovering the aorta. The right upper lobe was contracted and contained numerous smooth-walled, and to some extent trabeculated, cavities of bronchiectatic appearance, communicating with dilated bronchi. The intervening lung-tissue was airless, collapsed, and traversed by fibroid strands, but was not greatly indurated. The bronchi in the middle lobe and to a less extent in the lower lobe were dilated; in the middle lobe there were cavities, and a similar condition of lung to that in the upper lobe. The dilated bronchi and cavities contained a foul-smelling putty-like secretion. Left lung congested. Smaller bronchi existed in places slightly dilated. There were no nodules of any sort in either lung. Bronchial glands contained calcareous concretions, but no caseous matter, and were not enlarged. Heart: Slight dilatation with scarcely any hypertrophy of the left ventricle. Aortic valves thickened, puckered, and adherent to each other, causing much stenosis of the orifice. No vegetations. Aorta: trifling atheroma just above the valves only. Other organs healthy.

The pathology of the nervous phenomena observed in the case is what mainly concerns us here. The patient without any warning was seized with attacks of right-sided convulsion of the arm and face, which were frequently repeated and always in the same order, the arm being first convulsed and then the face. Loss of power in the arm developed within a few hours, whereas paralysis of the face did not appear for more than a week after the first attack; and at the same time the leg became paralysed without having been convulsed at any time. The first attack was attended by loss of consciousness, but I believe this was not the case with the subsequent seizures, though the point is not mentioned in the notes. It seems probable that the facial spasm was due to irritation of the lower part of the ascending frontal convolution below the abscess. This view is supported by the fact that this part of the convolution was found in a softened condition after death. This conclusion, however, is somewhat weakened by the presence of softening in the upper part of the same convolution and in the posterior part of the middle frontal. Still it is more in accordance with experience to take this view than to regard the facial affection as due to the other lesions just referred to. Unfortunately, the distribution of the facial spasm is not specified in the clinical notes, though it was expressly stated that the mouth was drawn over to the affected side. Pathological and experimental evidence both point to a connexion between the lower part of the ascending frontal convolution and the lower facial muscles. There was some embarrassment of speech from the first, but no true aphasia. The situation of the abscess in the middle third of the ascending frontal convolution corresponds with the localisation of the lesion that has several times been found in cases of brachial monoplegia (compare cases quoted by Ross, Diseases of the Nervous System, vol. ii.) The main stress of the cerebral lesion fell upon the arm centre, convulsion began in the arm, and the arm was the first part to be paralysed. Clearly the abscess was the initial nervous lesion, and the surrounding softening was of later date. The immunity of the cortex of the ascending parietal convolution and the destruction of the subjacent white fibres would explain the development of paralysis of the leg without antecedent convulsion. The origin of the abscess is to be found, no doubt, in the absorption of putrid materials from the cavities in the lung. Although the cavity contents had a strongly fetid odour after death, the expectoration was never noticed to be offensive during the patient's life. The post-mortem record is sufficient to show that this was not a case of ordinary tuberculous phthisis, and this conclusion is warranted by the fact that microscopical examination of the contents of the cavities failed to detect any tubercle bacilli. The cavities were, I believe, bronchiectatic in origin.

From the point of view of diagnosis the chest affection has considerable interest. The retraction of the right lung uncovering the aorta and the stenosis of the aortic orifice gave rise to physical signs closely simulating those of aneurysm. Whether the "pains all over him" which the patient spoke of as marking the commencement of his illness were due to acute rheumatism or not, it is impossible to say, though it is not improbable that it was so.

Brook-street, W.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—The first meeting of the session 1885-86 will be held at the West London Hospital on Friday, October 2nd, at 8 P.M. The President, Mr. W. B. Hemming, will deliver an address, and several surgical cases will be shown by Mr. Keetley. Subjoined is the list of officers:—President: Mr. Hemming. Vice-Presidents: Dr. Alderson, Dr. Pickett, Mr. E. C. Barnes, Dr. Campbell Pope. Council: Dr. Clippingdale, Mr. Swinford Edwards, Mr. J. R. Lunn, Dr. Hart Vinen, Mr. R. F. Benham, Mr. C. B. Keetley, Dr. Owles, Dr. Thudichum, Dr. Travers, Dr. Bullock, Mr. F. C. Dodsworth, Dr. Wells. Treasurer: Mr. Lawrence. Secretaries: Mr. Gunton Alderton, Mr. H. Percy Dunn.

LAPAROTOMY AS AN AID TO HERNIOTOMY.

BY E. HURRY FENWICK, F.R.C.S. ENG.,
ASSISTANT-SURGEON TO THE LONDON AND ST. PETER'S HOSPITALS.

THE following case seems deserving of record, not only because it affords a good example of an obstacle seldom met with in the reduction of herniated gut, but also because it indicates the real value of laparotomy as an aid to herniotomy in those cases where the loop of bowel has been rendered weak or rotten by forcible taxis or inflammation. The operation is a novel one, and owes its origin to a suggestion of Mr. C. B. Keetley,[1] who pointed out how much easier it is to draw a loop of bowel up than to press it back, piece by piece into the peritoneal cavity.

J. N——, aged fifty-three, has had an easily reducible left inguinal hernia for seven years; he has always worn a truss. On June 25th, whilst getting into bed without his truss, the hernia descended. He found himself unable to replace it, and throughout that night he used, as he afterwards acknowledged, considerable force. He vomited thrice, and was admitted into the London Hospital on the following day. I saw him at noon; he had a large left inguinal hernia, which was dull on percussion, and gave no impulse on coughing; the skin over and around the tumour was of a vivid red; the tongue was white but moist. He had just vomited some bilious fluid, and was suffering great pain in the groin. The urine was free from albumen. The house-surgeon, Mr. Frizell, had attempted gentle taxis, and as the hernia was large, I ordered an ice-bag and one-third of a grain of morphia subcutaneously, fully expecting that the hernia would soon prove reducible. At four o'clock, finding no decrease in the size of the tumour, I obtained permission to operate if necessary, and attempted reduction by taxis under chloroform. This proved ineffectual. Herniotomy was performed, the sac being opened. It was full of bloody serum, and contained a long loop of small intestine, the surface of which was dull, of a purplish hue, relieved here and there by the bright-red of its markedly injected superficial vessels. A bleeding point was noticed, and in one place the peritoneal surface of the gut was torn and the muscle frayed. The neck of the sac was then incised, but the contents of the bowel could not be emptied. The gut was therefore withdrawn from the sac under cover of lint steeped in carbolic lotion (1 in 19), and examined. The part which had been in the grasp of the neck was contracted, and of a milk-white colour; there were no adhesions between the coils. An attempt was consequently made to replace the gut piece by piece, but this also proved unsuccessful, for as soon as a few inches had been replaced they were shot out again. On carefully examining the abdominal aspect of the neck of the sac the finger impinged against a tense elastic body, which was felt to be occluding the entire mouth of the sac, with the exception of a small part of the inner margin, to and through which the herniated bowel could be traced. I surmised this resilient body to be tensely inflated bowel, adherent to the greater part of the ring. The weakened and ecchymosed bowel prohibited much pressure. Longer exposure would have been injurious. A two-inch median incision just above the pubes was therefore made, the carbolised left forefinger introduced, and directed towards the neck of the sac. There was a slight hesitation in finding the inner margin of the opening of the ring, because the bowel seemed to be completely covering it. Finally, the ring was recognised, the finger hooked under the gut, and the entire hernia rapidly and easily withdrawn into the abdomen. Buried sutures, after Neuber's method, were introduced and wood-wool dressings were applied, a small piece of drainage-tube being left in the inguinal wound. A morphia suppository (one-third of a grain) was ordered.—27th: There has been hardly any shock; pulse and temperature normal; he is in no pain; has an occasional hiccough; complains of being kept on his back. To have peptone enemata and to suck ice; brandy mixture every third, and opium pill (one grain) every sixth hour.—28th: Both wounds united, with the exception of the drain track in the groin; tube removed; iodoform dusted over the wounds. He passes his urine freely; is in no pain. Respiration full and abdominal; temperature normal.—30th: Patient has vomited his pills; pills stopped. He is very restless and complains of his back aching; no abdominal pain. Pulse small and soft (125); allowed to turn on his side. Strong beef-tea and brandy mixture every four hours.—July 1st: Has slept well during the night, but has had retention of urine. Was catheterised; urine normal. Is in no pain. Temperature normal; pulse weak (125).—2nd: Wounds are quite healed, but patient is worse; he is extremely restless. At 10 A.M. his breathing had become laboured; his face was flushed and sweating, his lips were covered with sordes, his abdomen was flaccid; he had had no stool. He gradually became comatose, and died quietly at noon, six days after the operation.

Autopsy.—Wounds quite healed. No evidence of peritonitis, except in the region of the coil which had been strangulated. This latter was adherent to the surrounding coils, the union being especially firm where the surface had been frayed. Its colour was of a deep purple, its surface dull, its walls flaccid, but its mucous membrane was healthy. At the left internal ring there was a piece of sigmoid flexure projecting up against and completely obscuring the neck of the sac. On evacuation of the contained gas it was seen to be adherent by its inferior margin to the lower border of the ring. When thus empty, the coil lay flat on the iliac fossa, with its line of attachment to the lower margin of the ring and to the adjoining Poupart's ligament plainly visible. On inflation, however, the coil rose up tense and resilient against the mouth of the sac, resistent in proportion to its inflation and to the pressure of the mass of intestines above it. Doubtless this piece of gut had at one time or another been nipped in the sac, and on its reduction had formed this adhesion. The heart was flaccid and full of fluid blood; the muscle wall was thin and friable, the valves healthy. The left lung was adherent throughout, and was in a state of extreme hypostatic congestion; the right lung was similarly but less affected. Liver, kidneys, and bladder healthy; spleen small. Head examination forbidden.

I cannot account for this sudden and unexpected termination, except on the supposition that it was one of rapid exhaustion. The unfortunately fatal issue should not, however, be allowed to weigh against an operation so simple, so effective, and, in these days of abdominal surgery, so safe. I do not believe a small peritoneal incision—presuming strict antisepsis be observed—adds much to the risk of herniotomy. The rapidity and ease with which the gut was in this instance withdrawn past an unknown barrier, thus contrasting so markedly with the previous necessary manipulation of the gut, induce me to believe that it will find favour with the profession, and come to be a recognised adjuvant to herniotomy for those cases in which the condition or size of the loop of bowel prohibits pressure or forbids prolonged exposure.

George-street, Hanover-square, W.

[1] British Medical Journal, Dec. 13th, 1883.

ADDITIONAL CASES OF TAPEWORM.

BY T. SPENCER COBBOLD, M.D., F.R.S.,
LATE LECTURER ON PARASITIC DISEASES AT THE MIDDLESEX HOSPITAL.

IN THE LANCET, June, 1874, I offered "Remarks on Eighty Cases of Tapeworm," and in a later paper gave an account of the "treatment" pursued in a second series. These, with other examples, to the number of 180 cases, having been republished in the fourth edition of a small manual, I desire to add a few others, so as to extend the teachings acquired and the results obtained from 200 nearly consecutive cases.

CASE 181.—M. E——, a girl of fourteen, whose case had been entirely misinterpreted, first saw me in February, 1883. I subsequently treated her at Brighton. The case was instructive, inasmuch as the passing proglottides had been regarded as parasites of a totally different order, and the search for the head of the worm, after the employment of male fern, was attended with unusual difficulties. The head, indeed, with other matters, had been thrown on a dust-heap, but I nevertheless obtained it from the débris. The strobile measured eighteen feet and a half. Cured.

CASE 182.—B. E——. This French lady had been the victim of tapeworm for twelve years, and had not only been treated in England, but also in Germany, in France,

and in America, without success. She had pricking sensations and pain at the pit of the stomach, with vertigo and dimness of sight. I treated her with male fern in March, 1883, and obtained a perfect beef tapeworm twenty feet in length, the head being separately detached. Cured.

CASE 183.—T——, a wealthy greengrocer, consulted me on April 11th, 1883. He had been "annoyed by tapeworm for a few years past, and at times became so faint as to feel quite prostrate." He had threatening paralysis and dragged the left foot. Frequently treated of late, it was impossible to determine the actual growth of the parasite; nevertheless, deeming the case an urgent one, I immediately ordered male fern, and expelled an immature worm about five feet in length, with the head. Cured.

CASE 184.—C——. This referred to a young lady of twenty-eight years, whose usual medical attendant had recently pursued a correct course of treatment with varying results. She saw me in April, 1883. It appearing probable that a fresh strobile was forming, I prescribed with a view of testing. Unfortunately no opportunity was afforded of making the necessary investigations, but exactly a year afterwards her doctor wrote to say he had "every reason to believe" that the patient had passed no more tapeworm. Later inquiries induce us to think that the patient labours under a delusion.

CASE 185.—M. M——, a lady, called to consult me twelve years ago, but as I was absent she obtained medicines from a firm of chemists who sometimes supply my patients. The parasite was dislodged, but no proper investigation having been made, she remained under the impression that the worm was still left behind. Her exhaustion and other symptoms, however, were clearly due to a rapid succession of childbirths. The cure was thus followed by a delusion which further advice dispelled.

CASE 186.—P. W. F., lieutenant-colonel, sought advice in July, 1883. He had suffered inconvenience for two years past, and had been treated without any marked result. By means of male fern I succeeded in expelling a large beef tapeworm twenty-five feet in length. The head was separately detached, and was remarkable for the almost complete absence of pigment. Cured.

CASE 187.—J. F. H. W——, an officer in the Royal Artillery, stationed in North India, appears to be a great sufferer, his case being complicated with threadworms. The colonel of his regiment having been cured whilst under my care (Case 100), recommended him to seek advice, which he did in July, 1883, by letter. The worm was thought to have been contracted in Zululand in 1879, since which time he "has swallowed large quantities of male fern and turpentine." Yielding to the patient's wishes I prescribed for him, but, from his remarks to the effect that the worm returns "about every four or six months," I anticipated only negative results. Delusion case.

CASE 188.—H. D. C——, a young gentleman of twenty-five years, first observed the worm six months back, but believes that he contracted it in India three years ago. He has been treated homœopathically, yet withal by one-ounce doses of kousso infusion, which twice expelled the strobile. I prescribed for him in August, 1883, and thus afterwards obtained not only the body, but also the head, of a beef tapeworm which measured twenty-three feet in length. Cured.

CASE 189.—E. J —— is a cooper by trade, thirty-six years of age, and has had tapeworm for three years. I first advised in Nov., 1883, expelling a narrow, ill-nourished worm, twenty feet in length. As the head was not obtained at the time the patient took a desponding view of his case, but the sequel proved that the worm had been destroyed. He was under my care again in 1884, but no trace of the parasite existed. Cured.

CASE 190.—B. F——, a gentleman of distinction, consulted me in December, 1883. Convinced that he still suffered from tapeworm (although three months had passed since he had last parted with his guest), he wished me to put him to the test. The only result was that he became relieved of a small bot-like dipterous larva, armed with irritating spines. Suffering from mental strain and irritability, aggravated probably by the presence of the small entozoon, I prescribed nux vomica and phosphide of zinc, and further advised a visit to the Continent. This course was attended with the best results. Delusion.

CASE 191.—K. B——. This young lady came under treatment in February, 1884. She had recently observed proglottides that were expelled by the use of quassia injections. By the male fern method I first expelled a strobile twenty-one feet in length, and subsequently obtained the head, which showed the central or supplemental sucker with remarkable distinctness. Cured.

CASE 192.—M. P——, a merchant, fifty-five years of age, saw me in March, 1884. He complained of prostration, due, as he supposed, to the presence of a tapeworm, which was first observed six months previously. The administration of male fern expelled an ill-nourished beef tapeworm seventeen feet in length, but the head was not obtained. In view of warding off a threatening general paralysis I prescribed strychnine in small and frequent doses. Result uncertain.

CASE 193.—D. S——, thirty years of age, a captain, R.N., sought advice in April, 1884. He has been victimised for four years, and had repeatedly undergone treatment both in India and in England. He believes he contracted the worm in Rangoon. In this case immediate expulsion of the body, head and neck of the worm, followed the use of male fern. Cured.

CASE 194.—S. H——, formerly an orderly-room clerk of the 20th Hussars, contracted tapeworm at Lawrencepoor, Punjab, in 1868. He was told to "take no notice of the worm, as it would do him no harm, and everyone had tapeworm there." During the last sixteen years he had been treated both by civil and by military doctors. Neither kousso nor male fern had done any good, but turpentine had expelled the body of the worm, causing, however, much distress. At the request of Dr. Charles Cobbold, of Earlswood, I prescribed a male fern mixture, and at once dislodged the entire parasite. The head is in my son's possession. Cured.

CASE 195.—A. E. R——. This gentleman has been frequently treated at Colombo, Ceylon, with the result of obtaining temporary relief. He consulted me in May, 1884. My first efforts resulted only in the expulsion of a strobile seventeen feet in length, without the head. Counselling delay, I treated him again in the following November, with the happy result of expelling a perfect but immature worm five feet in length, with the head intact. Cured.

CASE 196.—H. J. C —— is the wife of a veterinary surgeon. I had repeatedly advised her husband as to the best methods of procedure, but, failing to do more than expel the body of the worm, he at length placed her under my care. In January, 1885, she was thus again treated, but being in an advanced state of pregnancy extreme caution was observed. The medicines produced vomiting, but a strobile twenty feet long was passed without the head. Coming under my care again, four months later, the worm was expelled along with the head. Cured.

CASE 197.—H——. In October, 1884, a medical man requested me to see his sister, who had suffered from tapeworm for three years. At his hands she had frequently received temporary relief. I treated her in December, but the lady, whilst very courageous, had great difficulty in retaining the male fern extract, though administered in capsules. It thus resulted that only an ill-nourished strobile, twelve feet in length, was eventually expelled. It was impossible to push the treatment further at the time. Result doubtful.

CASE 198.—W. E——, a widow, sixty years of age, came to me in November, 1884, bringing with her several feet of a tapeworm recently expelled from herself. Thrice she had submitted to dispensary treatment, and thrice had she in consequence parted with the body of the worm. Counselling a delay of six weeks, I administered male fern and kamela in combination, and expelled a very broad beef tapeworm with the head and neck unbroken. Cured.

CASE 199.—S. A——. This lady, a Jewess, has been repeatedly under treatment for tapeworm during the past eighteen months, with the usual temporary benefit. She had been well advised, but absolute success not following, in December, 1884, an opportunity was afforded me of treating her. In this case immediate success followed the male fern method, the head and neck of the worm being expelled before the strobile was dislodged. Cured.

CASE 200.—E——, an American gentleman, was professionally advised to see me, which he did in June, 1885, His case had been misunderstood, the passing proglottides, as often happens, being regarded as independent worms of another order. The general malaise and depression were severe. Fortunately the exhibition of kamela and male fern at once brought away a tapeworm twenty-four feet in length, the head and neck being separately detached. Cured.

Remarks.—If the results here set forth be compared with those previously published by me, it will be seen that they

fully confirm all that I have previously urged in favour of male fern remedies as compared with kousso, turpentine, pomegranate root bark, and other drugs. A Canadian doctor has recently advocated the use of glycerine as a tæniacide, and he thinks it superior to the method of croton-oil and chloroform. The advocacy of new remedies is seldom supported by evidence derived from more than one or two cases; therefore, before practitioners adopt new remedies, they are entitled to demand the publication of at least fifty or one hundred consecutive cases, showing the proportionate number of cures and the number of heads secured. No just criterion is obtained by the publication of successful cases only. The 200 cases published by myself do not, of course, represent more than a portion of the strange experiences gathered in this department of helminthology, since in a large, if not larger, number of instances an opinion only has been demanded at my hands.

Portsdown-road, Maida-hill, W.

REMARKS ON A CASE OF

DISSEMINATED SCLEROSIS, WITH UNUSUAL SYMPTOMS.

BY A. M. EDGE, M.D., B.Sc., M.R.C.P.,
PHYSICIAN TO THE SALFORD ROYAL HOSPITAL.

THE patient, a man aged twenty-nine, was admitted into the Salford Royal Hospital on Sept. 9th, 1881. The history given was that he had always been strong and healthy until the preceding February, when he fell from the top of a lurry to the ground, alighting at full length and face downwards. He felt some pain about the loins, but was able to get up and walk away without help. He returned to his work after an interval of three days, but had been working only for two days when he sustained another accident by falling downstairs. A scalp wound on the top of his head was the consequence of the second accident, and this wound seems to have healed in a few days. He says that he worked for about a week after the fall, and was then compelled to desist because his arms began to tremble and his legs to grow weak. On account of these symptoms he came under the care of Dr. Haslam, who was then one of the resident medical officers, as a home-patient, and as no improvement took place he was sent, about the beginning of June, to Southport. While there he felt better, but some difficulty of speech was experienced. When admitted into the hospital he looked a fairly healthy man, but had a vacant expression, and said he felt nervous. His memory was somewhat impaired, and he was very emotional, frequently bursting into tears without adequate cause. There was tremor of the tongue, and he spoke with evident difficulty, in a slow and measured manner, somewhat like a child repeating by rote what it does not understand. The eyelids were tremulous when closed, but there was no nystagmus. The special senses were normal, except that of hearing, which was considerably impaired. There was no tremor of the head. The arms were normal in size and motionless while at rest, but when told to hold them out, and especially when executing any movement, they were affected by rhythmical tremor. The legs were normal in size, and he walked well without any tremor, but very easily grew tired; the knee-jerks were decidedly increased and ankle clonus was elicited. Sensation and faradaic contractility were normal, and there was perfect control over the sphincters. The larynx, lungs, and heart were healthy, and there was no albumen in the urine. On Sept. 18th he lost the use of his right arm and leg for about half an hour, and he now volunteered the information that he had had several similar attacks previously. He said that he had no pain or loss of consciousness during these seizures, but simply felt dizzy. On Sept. 23rd he had another attack. He had been walking about in the ward when he suddenly felt ill, and with assistance he undressed and went to bed. Dr. Haslam, who saw him about half an hour afterwards, found him quite conscious but very emotional, crying at times and complaining that he felt very ill. The arms were perfectly cold to the touch and of a reddish-purple colour up to the elbows; the radial pulses were distinct and full, beating 70 in the minute. The legs were cold to the knees but natural in colour, and the anterior and posterior tibial arteries could be easily felt. The right arm and right leg could be moved only with great difficulty. The features were not drawn, and the tongue was protruded straight. The heart sounds were healthy and the breathing normal. This attack lasted for an hour and a half; the temperature was normal at its commencement, and was not taken afterwards. On Oct. 16th the patient had another attack of paralysis, affecting on this occasion both his legs, which were cold, but not discoloured. On the 18th the tremors of the arms were noticed to be much increased, and on the 21st he had an attack of vertigo on getting out of bed, which caused him to fall, but no paralysis followed. On Nov. 1st an attack of paralysis occurred, lasting an hour and a half, and involving both arms and both legs; but the left extremities more markedly. At the onset there was some twitching of the face. No rise in temperature above 99° took place. On the 8th the tremor of the arms was very distressing. During the previous night the patient had a delusion that another patient tried to take his medicine. On the 13th his speech was almost unintelligible. He had several delusions in the evening, when his temperature was 100·8°. About four o'clock in the afternoon of the 19th, while sitting on a chair, he began to cry, and was unable to stand up or to undress himself. When in bed it was seen that he was suffering from paralysis of the left arm, left leg, and left side of the face; the tongue was protruded to the left. The tremor of the right arm was increased. At the onset the temperature was 99·8°; at 9 P.M. it had reached 101°. He quickly became comatose, and remained so during the night, and at 6 A.M. on the 20th the thermometer registered 105·6°, and at 10 A.M. 103·6°. During the 20th he remained unconscious, breathing deeply and somewhat stertorously, with a little flapping of the lips. The paralysis of the face was no longer noticed, and some slight resistance was felt on bending the left elbow. The right arm was twitched constantly, and the urine was passed in bed. On the morning of the 21st the paralysis had passed away, and he was continually throwing his arms and legs about; but he seemed to regain consciousness about noon, and the power of swallowing returned. On the morning of the 22nd he spoke for the first time, and the tremors were scarcely noticeable. The temperature was 101·4° in the morning and 100·8° in the evening. He went on steadily improving until the 28th, when he became very excited without any cause, and was with great difficulty kept in bed. He had delusions of various kinds. This condition continued until Dec. 1st, when his mind became quite clear. The tremor of the arms was very slight, and his speech was quite intelligible. This improvement continued, and on the 6th he was allowed to leave his bed, when it was found that he could stand. In a few days he was able to walk quite steadily, and when he left the hospital, on Feb. 8th, 1882, the only symptoms present were slight tremors of both arms and of the tongue, the "scanning" speech, with the increase of the knee-jerk. The deafness was very slight indeed.

The report of this case has been held over in the hope that it might have been made more complete. I regret, however, that I can only add that for some weeks after his discharge the patient was reported to have maintained his ground, and that he was then lost sight of, and all efforts to trace him have been futile.

The case is interesting, among other reasons, for the clear history of an injury preceding the onset of symptoms by a few days only. Charcot[1] mentions one case in which "the first symptoms are alleged to have appeared a short time after a fall"; and Erb[2] believes that the occurrence of a previous injury is mentioned too frequently in the records of cases of disseminated sclerosis for it to be merely a fortuitous circumstance. In the case now under review, the probability of one or both of the falls having a causal relationship to the disease seems very strong indeed. The absence of any tremor of the head in this case may be mentioned, as this symptom is found in the great majority of cases of sclerosis in patches, and is looked upon as one of the distinguishing differences between this disease and paralysis agitans. Impairment of hearing is an unusual symptom in the disease under consideration, but it has been noticed in isolated cases, as in one of Dr. Moxon's,[3] in which it was a temporary occurrence. But the most noteworthy points in the case recorded are connected

[1] Lectures on Diseases of the Nervous System.
[2] Ziemssen's Cyclopædia. [3] Guy's Hospital Reports, 1875.

with the apoplectiform attacks from which the patient suffered so frequently while under observation. These attacks are not at all rare, as they occur, according to Charcot, in about one-fifth of the cases of disseminated sclerosis, and they are not peculiar to this disease, but are found in other affections, especially in progressive general paralysis.

The first point worth notice is the temperature, which is said to be always raised during these seizures, and in Charcot's experience a temperature above 104° is "almost always followed by a fatal termination." In this case, however, recovery ensued after so high a reading as 105·6°. The variety in the forms of the paralysis which accompanied these attacks is most remarkable. The usual form is hemiplegia, but, as the notes show, the paralysis in this case was by no means always of a hemiplegic character. Thus, sometimes there was right hemiplegia without implication of the face; at another time paraplegia; on the next occasion all the extremities seem to have been involved; while in the last attack there was left hemiplegia with implication of the face. In this last seizure only was consciousness lost, while on other occasions there seems to have been severe vertigo without either unconsciousness or paralysis. The remaining point which deserves mention is the temporary vaso-motor disturbance which was observed on Sept 23rd, and which is, I believe, a most unusual occurrence in cases of disseminated sclerosis. On the date mentioned the extremities became perfectly cold to the touch, and the forearms were noticed to be of a reddish-purple colour. This hyperæmia of the forearms could certainly not be due to vaso-motor paralysis, for in that case elevation of the temperature of the parts would have been found; nor could it have been entirely due to irritation of the vaso-motor nerves, as, though the coldness of the lower extremities might be thus explained, it would not account for the discolouration of the forearms. This latter phenomenon seems rather to belong to the group of vaso-motor disturbances, which is characterised, according to Erb, by marked lividity and a cyanotic tinge of the skin, and which he terms "atonic hyperæmia by stagnation." He mentions having observed such a condition in a case of probable sclerosis of the lateral columns; but he does not state whether it was a temporary or a permanent disturbance. There is a case observed by M. Vulpian, and quoted by MM. Bourneville and Guérard,[4] in which the forearms and hands are described as being of a violet tint, and somewhat œdematous; the temperature of the parts seems to have been normal while under observation. This phenomenon, however, was permanent.

I regret that I have not been able to give a more complete account of this case, but, incomplete as it is, it seems to me to possess several interesting features.

Manchester.

DIFFUSE SCLERODERMA.

BY HENRY HANDFORD, M.D. EDIN., M.R.C.P. LOND.

THE following case came under my care as an out-patient in 1882 while I was one of the resident staff of the Nottingham General Hospital, and, besides being an example of a rare disease, presents some special points of interest.

The patient was a girl, aged thirteen years. Her father, aged forty-five, is a framework-knitter, and is stout and well. Her mother, aged forty-four, is healthy, but thin and slight. She has had nine children, of whom three died in infancy, and one at six years of age of consumption. The rest, except the patient, are strong and well. There is no history of any similar skin affection in the family on either side. She (the patient) was a small, thin, badly-nourished child, but had had no serious illness previously except measles. She had not had rheumatism or erysipelas.

She first came under observation on March 1st, 1882, and then stated that her present illness began a year previously with feverishness and the presence of red blotches in the skin, commencing on the back of the neck, and spreading, more or less, all over the body. A few months later she complained of a stiffness of the joints, and a little later noticed the white scar-like appearance of the skin over the knuckles and elbows. Her condition was as follows:—The temperature in the axilla at mid-day was 99·6° F. The skin felt warm and moist, and presented a mottled appearance, caused by numerous pink blotches, varying in size from that of a sixpenny piece to that of a five-shilling piece, but irregular in shape, the intervening skin being normal in colour. This mottling was most marked on the neck, chest, and shoulders; much less on the abdomen and lower part of the back, and scarcely noticeable on the gluteal regions and upper parts of the thighs. There was no alteration of colour on the legs. The backs of the upper arms and both the flexor and the extensor surfaces of the forearms were mottled. She complained of a "tight feeling" and of a difficulty in moving her joints, but had never felt any itching or tingling, or any pain, except for a short time in the left thigh, the skin on the outer side of which was slightly indurated, smooth mottled, and hyperæsthetic, pain being caused by even a light touch. On the feet the skin was of an opaque-white colour, hard and adherent to the subjacent structures, especially over the malleoli and over the heads of the first metatarsal bones, where there was a surrounding, congested, purplish zone. The movements of the ankle-joints were much restricted. The skin of the legs was only slightly affected, but at the knees over the patellæ it was glazed, smooth, indurated, and adherent to the periosteum. In the popliteal spaces the skin was but little altered. Both knee-joints were kept slightly flexed and could not be fully extended. The left could not be flexed to a right angle with the thigh; the movement of the right was rather more free. The right thigh could be flexed to a right angle, but the left only to an angle of 145° with the trunk—i.e., through an angle of 45°. The fingers were bluish, thickened, stiff, and in a semiflexed position, the range of movement being exceedingly limited. The skin over the knuckles was very white, smooth, indurated, and cicatricial looking, and was adherent to the extensor tendons and to the heads of the metacarpal bones. Over the extensor surfaces of the phalangeal joints this condition was less marked. On the flexor surfaces of the forearms the skin was red and mottled, with white striæ passing in different directions. The superficial flexor tendons seemed to be unusually prominent, and to be adherent to the skin, which was smooth, indurated, and could not be pinched up into a fold. The motions at the wrist-joints were very much restricted. The elbows could be flexed, but not extended beyond an angle of about 145°. The skin over both olecranon processes was white, cicatricial, and adherent, and on the left side it was ulcerated. The skin on the upper arms was a little thickened. She could not touch the top of the head with either hand. She could not raise the right arm above the level of the shoulder, and the left not so high as the right. She could not rotate the head from side to side through about a quarter of a circle—i.e., about half way to the shoulder on either side. There was some thickening of the skin of the neck and trunk, but it was not so evident as on the extremities. On the back there were the same white cicatricial patches of skin adherent to subjacent bony prominences—viz., the posterior superior spines of the ilium and the spines of the sacrum—as in the extremities. The face was pale, expressionless, and looked like wax. The skin was much thickened, and could not be pinched up. It was smooth, and there was a total absence of wrinkles or folds, except the naso-labial fold, which was deepened, especially when the patient tried to laugh; no other folds or wrinkles appearing even then, or when she tried (but failed) to purse up the lips as in whistling. She could close the eyelids, but not screw them up tightly. The tips of both ears were white, hard, and cicatricial, and the right was ulcerated. She could only wrinkle the forehead very slightly vertically on trying to frown (corrugator supercilii), and not at all horizontally (occipito-frontalis). The lips were thick, the mouth was generally partly open, but could be closed. The tongue was smooth and glazed; the gums red and spongy; the teeth very irregular, and many were carious. There was no noticeable falling off of the hair of the head. The heart and respiratory sounds were normal, the appetite poor, the bowels constipated. There was considerable wasting of the muscles of the limbs. She had not menstruated. A few months previously her mother noticed that she used to sweat more than other children. Now (March, 1882) she did not sweat so much, but still the skin was unquestionably moist, and nowhere was any unusual dryness of it detectable; neither did the skin feel cold; on the contrary, the temperature was only just below 100°, and she generally

[4] De la Sclérose en Plaques disseminées.

complained of feeling hot. She could not stoop properly, and had great difficulty in walking because of the general stiffness of her joints. She could walk to the hospital—a distance of about a mile—with assistance, but could not get upstairs or into bed without help. She could not sit in a hip-bath, and when sitting on a chair was obliged to do so at the edge and keep her legs nearly straight out.

The patient was ordered to have a warm bath every day, followed by friction with oil, and was given iron and cod-liver oil internally. On March 22nd her temperature was 99·8°. Her condition was otherwise unaltered. On April 5th the temperature was 99·4°. The mottling of the skin was less, and was nearly gone on the trunk and thighs. On May 10th the temperature was 98·7°, and there was slight general improvement. On June 7th the condition was unaltered; baths discontinued. On June 28th there was still some pink mottling of the skin on the backs of the arms and over the sternum; temperature 98·8°. On July 19th she complained of tightness of the chest, shortness of breath, and some difficulty in breathing, probably due to the affection of the skin of the thorax; expansion diminished, respiratory sounds and percussion note not abnormal. On Oct. 7th the mottling of the skin was very little apparent. Weight 69 lb. Ordered quinine, iron, and cod-liver oil. There was no improvement in the condition of the skin on December 4th. The mottling on the neck, shoulders, and chest had almost entirely disappeared, and had left a whitish cicatricial appearance; the skin seemed thinned, but was not adherent.

After this I was myself laid up for some time with typhoid fever, and consequently lost sight of the patient. I afterwards ascertained that she ceased to attend at the hospital shortly after I last saw her; she became quite unable to walk, and was confined to bed. The skin over the left knee ulcerated, and there was also a large patch of ulceration on the inner side of the left upper arm, which from the mother's description appears to have begun by sloughing. A similar condition existed at the lower part of the back and over the shoulder-blade. These may have been bedsores, but the position over the shoulder-blade is unusual; and moreover, the affection of the arm could hardly have been due to pressure. She died in October, 1883. There was no post-mortem examination, and I did not hear of her death till many months afterwards.

Remarks.—The patient, though of the sex most generally affected, was much below the average age at which generalised scleroderma most commonly appears, which is stated by Neumann[1] to be from twenty-five to thirty-eight. The absence of itching and tingling is unusual; in fact, Neumann says: "Though the subjective symptoms are very various, yet the feeling of tension and *slight itching is constant.*" He continues: "The sensibility of the skin appears in some cases to be diminished, *though pain, especially on pressure, is sometimes to be observed;* occasionally a *considerable rise of temperature* is to be perceived *in the developing patches of sclerosis*, in other cases again a lowering of the temperature." The italics and translation are mine. The increased sensibility and pain on pressure observed on the thigh in this case are, I think, very unusual, though apparently noticed before; diminished sensibility, however, being the rule. The hyperæsthesia can only exist in the early stage, before the contracting fibrous tissue has caused, by its pressure, atrophy of the nerves (Erasmus Wilson[2]). The rise in temperature in this case, though slight, was evident, and constant for at least two months. No observations showing a difference between the local temperature and that in the axilla were made, except that to the hand the affected parts felt warm. The statements as to any variation in the secretions of the skin are very various. Köbner[3] states that the sebaceous secretion is retained, and that he observed the formation of acne. In the case observed by Curzio[4] the secretion of sweat was completely absent. Rilliet and Guillot[5] state that it is diminished. Pauliski,[6] Arning,[7] Mossler,[8] and Radcliffe Crocker,[9] have observed that after every warm bath the skin broke out into perspiration, and Mossler states that after the perspiration there was a cessation of pain. Köhler[10] and Bristowe[11] state that the secretion of sweat is normal; Förster[12] says that it is scanty. Neumann says that in four cases observed by himself "the secretion of sweat on the parts affected was abolished, and that in spite of the daily use of vapour baths no secretion of sweat could be observed on the affected extremities." He describes the condition of the sweat glands as "enlarged with dilatation of their ducts and increase of the cellular contents," but looks upon the change as a retrograde one—an infiltration and not a true hypertrophy—analogous to the condition of the sebaceous glands and hair-follicles. In the case I have related there was very manifest increase of the secretion of sweat, especially in the earlier stages and on the trunk; the part last and least affected possibly in some degree compensating for a somewhat diminished secretion from the head and extremities, the parts most and earliest affected. But the skin was nowhere and at no period dry, as it is when the secretion of sweat entirely ceases. The gradual change during the nine months she was under observation from the hypertrophic to the atrophic condition, especially on the neck, shoulders, and back, was very evident, as was also the gradual disappearance of the pink mottling, and its replacement by thin white cicatricial patches. The ulceration and breaking down of the skin observed on the tip of the ear and over the olecranon, and described as having occurred over the knee, back, shoulder-blade, and arms, though occasionally observed (Erasmus Wilson, l. c.), is not often met with to the same extent. It is probably due to the atrophy and bloodless condition of the vessels, especially in the papillæ of the true skin first described by Neumann. Rheumatism, erysipelas (Neumann), and exposure to cold and wet (Bristowe) have been given as exciting causes; but there was no evident exciting cause in the case I have described.

Nottingham.

[1] Hautkrankheiten, 4te Auflage, pp. 398, 399, 403, 408, 409, 410. Wien, 1876.
[2] Quain's Dictionary of Medicine, 1882. Art. Scleroderma.
[3] Klin. u. Experiment. Mittheilungen, &c. Erlangen, 1864.
[4] Dissertation anatomique et pratique sur une Maladie de la Peau d'une espèce fort rare et fort singulière. Paris, 1755.
[5] Archives Générales de Médecine, 1854.
[6] Beiträge zur Sklerodermie: Virch. Arch., Bd. 43.
[7] Beiträge zur Lehre der Sklerema: Würzb. Med. Zeitschrift, 1861.
[8] Virchow's Arch., Bd. 23. [9] THE LANCET, 1885, p. 192.
[10] Württemberger Correspondenzblatt; Schmidt Jahrb., Bd. 118.
[11] Practice of Medicine, 1884, pp. 334, 335.
[12] Würzburg Med. Zeitschrift, 1861.

CASE OF INTUSSUSCEPTION TREATED BY MANIPULATION, WITH CURE.

BY ED. OVERMAN DAY,
ASSISTANT-SURGEON TO THE ROYAL HOSPITAL FOR CHILDREN AND WOMEN.

E. E——, aged six months, a healthy, strong, and very fat male child, was suddenly seized with sickness and diarrhœa. The diarrhœa lasted for about four hours, when a large quantity of blood was passed per anum. When seen by my assistant at 1 A.M., soon after the hæmorrhage had occurred, the child was collapsed, with cold extremities, livid lips, and rapid pulse. He ordered five drops of brandy in milk-and-water every few minutes, and a teaspoonful every hour of a mixture containing spirit of ether, twenty-four minims; compound spirit of ammonia, twelve minims; spirit of chloroform, twenty minims; tincture of lavender, half a drachm; water to an ounce and a half. At 8 A.M. the same morning (July 24th) I saw the child. The hæmorrhage had not entirely ceased, but the child had rallied considerably. He was still sick, and no flatus or fæces had passed; the vomit was of a greenish colour, the abdomen flaccid; an ovoid-shaped mass could be felt in the right hypochondriac and lumbar region. Before proceeding to the usual remedies I decided upon trying to reduce it by manipulation through the abdominal walls. This was commenced by a rotatory movement of both hands from across the left to the right side of the abdomen and to the right iliac region. This having been continued for a quarter of an hour, a distinct gurgle was heard and felt. The mass so distinctly felt before could no longer be discovered. At 11 A.M. the sickness had not entirely ceased. The infant slept a little, and seemed generally more comfortable. Strict orders were given that nothing should be administered by mouth. In this condition the child remained till the following morning at 8 A.M., with the exception of the subcutaneous injection three times of five minims of spirit of ether in water.—25th (8 A.M.): Has slept well; seems quite comfortable. Abdomen distended, but no tender spot to be felt. Ordered a teaspoonful of milk-and-water occasionally.

Linseed poultice to abdomen. 11 A.M.: Has been sick since taking the milk-and-water. Ordered two grains of calomel, which was immediately rejected. 9 P.M.: Still slightly sick. Ordered one drachm of castor oil to be injected into bowel.—26th: No sickness since 6 A.M. Bowels acted at 8 A.M.: Motion very dark, offensive, and slimy; no blood. Takes milk freely.

Remarks.—A little more than two years ago a medical friend asked me to see with him a child, aged five years, who had intussusception of the bowel. Our visit was within twelve hours of the child being taken ill. On my suggestion we decided to manipulate the bowel. It took about half an hour before we felt any improvement. The child made a most satisfactory recovery. These two cases are the only ones out of ten that I have seen which have recovered. In three of the ten abdominal section was performed, and in the other five everything possible was done that the friends would allow. The interesting point about the case E. E—— was the amount of blood passed. This is very unusual. In the cases I have seen a small quantity just oozing away being the rule. In reference to the treatment, it speaks for itself; but to be successful it must depend on the early diagnosis of the case. I am sure it is most important in all cases of sickness in babies not to trouble the stomach for some hours, even to twenty-four, and not to be frightened about injecting ether subcutaneously in collapse. The reason why calomel was given was because it sometimes controls sickness in a remarkable manner in babies, especially when the bowels have not been moved for some hours.

Waterloo-road, S.E.

EMPYEMA; SUDDEN RIGHT HEMIPLEGIA; ABSCESS OF TEMPORO-SPHENOIDAL LOBE.

BY SAMUEL WEST, M.D., F.R.C.P.,
PHYSICIAN TO THE ROYAL FREE HOSPITAL, ETC.

THE patient, Harriet S——, aged forty-six, was confined four months before admission to hospital, and three weeks before admission she was tapped for pleuritic effusion, and forty ounces of pus were removed. One week later twelve ounces, and again a week later still eighty ounces more were removed. The pus was of a light chocolate colour but sweet. Two days after this she became suddenly hemiplegic on the right side, with complete paralysis of the fifth and sixth nerves on that side, and she died a few days later. On post-mortem examination the left hemisphere was flattened above and bulged somewhat posteriorly. Pus escaped on attempting to detach it from the adhesions which had formed to the tentorium cerebelli. The whole posterior part of the left temporo-sphenoidal lobe was converted into a large abscess, with ragged walls, and containing chocolate-coloured pus. The left ventricle contained also some similar pus, which had clearly found its way in from the abscess in the brain substance. The bone was healthy and the meninges only secondarily involved. An adherent softening clot occupied the whole lateral sinus on the left side, and extended as far as the jugular. The rest of the brain was healthy. There was an extensive empyema on the right side, containing several pints of pus. The other organs were healthy. The uterus was enlarged, but there was no trace of thrombosis or inflammation.

Remarks.—Cases of abscess of the brain associated with empyema are interesting, for it is often difficult to see the connexion between them. Of the pathological changes in the brain, the abscess, I think, was clearly the primary, and produced both the meningitis and the thrombosis of the lateral sinus, as well as the pus in the lateral ventricles. How the abscess itself arose is a more difficult question, though the sudden access of cerebral symptoms with the rapidly following suppuration suggest pyæmic embolism. The fact of the empyema following parturition suggests similarly a pyæmic origin for this as well, although on post-mortem examination no disease in the pelvis was discovered.

Wimpole-street, W.

THE Harveian Oration will be delivered by Dr. Quain at the Royal College of Physicians, on Monday, Oct. 19th, at four o'clock.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

TWO CASES OF ANGINA LUDOVICI; REMARKS.

(Under the care of Mr. ARTHUR BARKER.)

LUDWIG'S ANGINA is a name applied to the condition known as submaxillary cellulitis, and is an acute inflammation of the areolar tissue beneath the deep cervical fascia of a diffuse character. It occasionally assumes an epidemic form, and is an extremely dangerous disease, which, if unrelieved by early incision, is apt to produce pyæmia, or cause death from extension to the larynx. The following cases, for the notes of which we are indebted to Mr. E. P. France, dresser to the wards, are of considerable interest.

CASE 1.—H. H——, aged eighteen, a van boy, was admitted to the hospital on December 15th, 1884. The patient said he had always had very good health. He caught cold, and three days before his admission had severe toothache on the right side; his neck swelled on that side at first, and, increasing in size rapidly, the swelling spread to the left side, but without much pain except the toothache. When admitted the patient appeared very ill, and there was great fulness underneath the chin and on both sides of the neck, extending round the angles of the jaw. The swelling was brawny, but pale, except a small reddened patch under the chin, extending a little to either side of the middle line. There was great prominence also of the floor of the mouth, and of the tongue itself, which was pushed up against the palate. He could swallow liquids, but only with considerable difficulty, and his breathing was slightly embarrassed. Fluctuation could only be indistinctly made out beneath the red patches. On the same day an opening was made in the middle line by a deep incision, and sinus forceps were passed along each side, between the layers of muscles, towards the angles of the jaw. Only about a drachm of thin, ichorous, and extremely foul serous pus came out. There was no serious bleeding. Fomentations of salicylic wool were applied. The temperature at the time of admission was 103°, and at 11 P.M., after the incision had been made, 102°.

Dec. 19th.—The patient felt considerable relief, and very foul pus continued to be discharged. The edges of the wound appeared grey and sloughy. He had considerable discharge from the inside of the mouth on the right side under the tongue, which commenced in the afternoon. A dilute solution of permanganate of potash was ordered. Temperature: 7 A.M., 102·2°; 7 P.M., 103·2°; 11 P.M., 100°.

20th.—He complained of his chest, and had a troublesome cough. There was continued discharge of very foul pus from the incision and inside of the mouth. He took liquid food with much less difficulty. Temperature: 7 A.M., 101·6°; 7 P.M., 103·8°; 11 P.M., 102·4°.

21st.—The patient's cough was very troublesome, some fine pneumonic crepitation could be heard at the base of the left lung. The discharge continued. He did not feel so well as yesterday, complaining a good deal of his chest. Temperature: 7 A.M., 102·6°; 10 A.M., 104·8°; 7 P.M., 103·5°; 11 P.M., 101·2°.

22nd.—There were numerous crepitations, especially at the base of the left lung. There was no discharge, and a diminution in swelling. Temperature: 7 A.M., 101·6°; 7 P.M., 104·2°; 11 P.M., 102·6°.

23rd.—Temperature: 7 A.M., 101·6°; 7 P.M., 103·6°; 11 P.M., 99°.

24th.—He felt much better altogether, and has been less troubled with his cough. The discharge is less from incision and the mouth. Temperature: 7 A.M., 99°; 7 P.M., 99·8°; 11 P.M., 98·4°. From this time he went on well, having only one slight rise of temperature on the 26th to 100°, after that the temperature remained normal, the lung trouble gradually disappearing. The swelling and discharge became less daily, and on Jan. 8th, 1885, the date of his discharge, he could move

his jaw and turn his head without pain, though somewhat stiffly; the discharge had entirely ceased from his mouth, and the external wound was quite superficial.

CASE 2.—The patient, a single woman aged twenty-five, was admitted on Jan. 4th, 1885, with considerable swelling and induration of the neck in front and on each side, extending on the right side as far as the posterior border of the sterno-mastoid, and on the left as far as the anterior border; upwards on the right side as high as the eye, causing œdema of the lids, but on the left not beyond the body of the jaw; downwards as far as the clavicle on each side, and in the middle line to the lower part of the manubrium. The floor of the mouth was very little swollen, the tongue not at all. There was a distinct blush over the entire swelling. No fluctuation could be detected. There was a decayed lower molar on the right side. A deep incision was made in the middle line beneath the chin; no pus escaped. Fomentations of salicylic wool were applied. The swelling and blush continued to spread, and the patient was transferred to the erysipelas ward on Jan. 7th, when the redness had spread over the clavicles and slightly on to the breasts, shading gradually into the normal skin without any sharp line of demarcation. She was ordered twenty minims of the tincture of perchloride of iron every four hours.

Jan. 8th.—This morning there was a fluctuating swelling below the site of the first incision, extending to the clavicles. An incision was made into it, and about three ounces of thick non-fetid pus escaped. A drainage-tube was inserted, and a hot boracic fomentation was applied. The patient slept well after having fifteen grains of chloral. Temperature: 11 A.M., 100°; 7 P.M., 99·2°; 11 P.M., 99°.

9th.—The redness and swelling retreated to an inch above the clavicle, and was less intense. There was considerable discharge of creamy pus into the fomentation.

10th.—There was very little redness about the incisions, though the swelling on the right side under the jaw was still very hard. After taking out the drainage-tubes, a firm coherent purulent mass, three inches long, was removed; after its removal the patient felt relieved, and said she could swallow with much greater ease. Fomentations were continued.

12th.—The patient felt much better; was able to eat some chicken. Another similar mass of thick tenacious matter was removed. There was no erysipelatous redness at all. Temperature has been normal for the last three days. She was discharged with only a superficial wound.

The patient was readmitted on Jan. 19th, complaining of great pain on both sides of the lower jaw. Glycerine and belladonna and hot fomentations were applied. Temperature normal up to the 21st, when the pain became worse.

22nd.—Last night the patient was unable to sleep, although she had a hypodermic injection of a quarter of a grain of morphia. She was put under chloroform, and the first left lower molar tooth was extracted, then the old incision was opened up and a director introduced; a small amount of very dark sanguineous fluid escaped. Hot boracic fomentations were applied. Temperature: 11 A.M., 100°; 6 P.M., 101°; 11 P.M., 100°.

23rd.—She felt better; had slept better the previous night. Temperature: 11 A.M., 100°; 6 P.M., 101·2°.

24th.—The patient felt worse; slept very little the previous night. There was no discharge from the wound; the parts around were indurated, red, and very painful. She was ordered sulphate of quinine, two grains; sulphate of iron, two grains; spirit of chloroform, ten minims, in one ounce of water; to be taken three times a day; and sanitas to wash out her mouth. Temperature: 11 A.M., 100°; 6 P.M., 101·6°.

25th.—The patient complains of great pain. An incision was made below the old one, and a quantity of non-fetid pus escaped; a drainage-tube was inserted, and boracic fomentations applied. Temperature: 7 A.M., 104°; 11 P.M., 102·6°.

26th.—A considerable quantity of pus escaped on taking off the fomentation this morning. The patient felt much relieved after this incision had been made. Temperature: 11 A.M., 103°; 3 P.M., 102·4°; 11 P.M., 104°.

28th.—She felt much better; pain and induration much less; was able to take a little solid food. Temperature normal. From that time she continued to do well, the temperature remaining normal, the swelling going down, and the discharge ceasing gradually. She was discharged on Feb. 5th, 1885.

Remarks.—Mr. Barker remarked on the prevalence of a bad form of cellulitis occurring frequently at about the time these patients were admitted into hospital and noticeable in different parts of the body amongst those attending the extern. This seemed to exhibit itself at its worst in the neck, and some of the cases admitted with cellulitis in this region were the most typical cases of which is known as angina Ludovici which he had seen. Other typical cases of the same affection had also been admitted about the same time (Nov. 1884 to Feb. 1885) into the other surgical wards of the hospital, and one he had seen in consultation in private. The features common to the most typical cases of the group which he had seen were these: a state of debility in the patients at the moment the disease was contracted; a damaged spot within the cavity of the mouth or throat, suggesting the possibility of the inoculation with a specific virus and its spreading from that point downwards; twice it was from the teeth, once from the neighbourhood of the tonsil; the rapid extension of the process of swelling under the jaw; the extreme hardness of the swollen part; the presence of this brawniness for a considerable time before the appearance of true pus; the thin, ichorous, dirty nature of the fluid evacuated by the earlier incisions, and in the most typical case its greenish-brown colour and peculiarly fetid, gangrenous odour; the high temperature during the spread of the process; the great depression of power of the patients during the height of the disease, and a peculiar duskiness combined with pallor of the skin; the beneficial effects of early incision in the middle line of the neck if possible, and drainage combined with free stimulation and the use of quinine and ferruginous tonics. It was remarkable that the discharge of fetid matter into the mouth in Case 1 was very soon followed by pneumonia, probably from access of putrid matter to the lungs.

BOROUGH HOSPITAL, BIRKENHEAD.

CASE OF HYDROPHOBIA COMMENCING ON THE TWENTY-THIRD DAY AFTER THE BITE.

FOR the report of the following case we are indebted to Dr. H. E. Richardson, senior house-surgeon.

Robert L——, aged seventeen years, a healthy country lad, was bitten by a terrier dog on July 18th, 1885, on the right thumb. He stated that the dog had entered the farmyard and was worrying the geese, and on attempting to drive it away it flew at him and bit him. He was taken to Dr. Lamb, who thoroughly cauterised the punctured wounds, which soon healed up, and no more was thought about the incident until Monday, August 10th, 1885, when he began to complain of a stiffness in his right hand, and said that he felt a peculiar twitching sensation in two of his fingers. He was given a dose of salts, and in the evening was taken to Dr. Lamb, who prescribed for him. That night he was freely purged, and had very little rest. The next day he was seen by Dr. Lamb again, who diagnosed incipient hydrophobia, and sent him to the above hospital.

August 11th, 1885.—5.30 P.M.: The patient was brought in a cab, but walked from the door into the room prepared for him, undressed himself, and got into bed. He lies quietly in bed and answers questions quite rationally; has asked for a drink, which was given to him; it was swallowed with difficulty and provoked spasm of the pharynx and neck. He remarks, "How strange it is, I cannot drink; it almost takes my breath away in trying to swallow; it has only been so since this morning." He complains of thirst and a stiffness of the right hand; no pain; pupils slightly contracted, due to a hypodermic injection of morphia he had two hours previously. 7 P.M.: Temperature 100·4°; pulse 90. Has just taken a cupful of bread soaked in milk with some difficulty. He says he cannot take any fluid. 11 P.M.: Is getting restless; complains of a choking feeling now and again; wants to get out of bed. On account of the thirst he has several times made attempts to swallow fluid, carrying it hurriedly to the mouth, but the spasm of the muscles caused great distress, so that he has been obliged to give it up. Now has a great dread of any fluid, and will not allow it to be brought near him. Bowels were opened two hours ago; also passed urine. One-third of a grain of hydrochlorate of morphia was injected under the skin of the forearm.

12th.—2.20 A.M.: Slept for two hours after the injection. Is now very restless, and the movement produces violent spasms of the muscles of the throat and the muscles of respiration. Has commenced to expectorate frothy saliva. The hypodermic injection was repeated. 4.30 A.M.: Slept

an hour and a half after the injection. He then became very restless, spasms came on more frequently, and at last he began to beg for the morphia. His elder brother, who was with him, and the nurse, had great difficulty in keeping him in bed. His pupils are widely dilated; and he expectorates saliva freely. The hypodermic injection was repeated. 9.30 A.M.: Temperature 102·8°; pulse 120. Slept only ten minutes after last injection, and lay quiet for an hour afterwards. Since then has been very restless, continually getting in and out of bed. The spasms were distressing, and came on each time he moved. There is a quantity of frothy saliva in a vessel near the bed, and also about the floor. He frequently spits as though afraid to retain it in his mouth. He has not taken anything all night. A little beef jelly was offered to him, but the sight of it made him jump out of bed and rush across the room in great terror. He readily held out his arm to receive the injection of morphia, which was repeated. 12 P.M.: The morphia had not the slightest effect; the pupils are widely dilated. Is getting quite exhausted; hands and feet are cold, as he continually kicks off the bedclothes. Any attempt to pull them over him brings on violent spasm, and he begs not to be touched; with great caution he pulls them over himself. With some difficulty by holding him down an enema of strong beef-tea was administered, but not much was retained. Another hypodermic injection of one-third of a grain of morphia was given. 2.15 P.M.: Found right side of face, neck, and chest emphysematous; right eye being closed by swelling of lids. Evidently some air tube had given way on that side in one of the spasms, and the air escaped into the cellular tissue. Is gradually sinking from exhaustion; pulse very feeble. Gave a hypodermic injection of brandy, and repeated the injection of morphia. 5 P.M.: Lies back supported with pillows; is quite exhausted; pulse cannot be felt. Spasms continue. Frothy saliva comes away from the mouth. Pupils are widely dilated. Is quite conscious. The patient gradually sank and died at 6.20 P.M.

Remarks.—The only treatment adopted in this case was the hypodermic injection of hydrochlorate of morphia (one-third of a grain) frequently. It was evident that at first it relieved the spasms for a time and gave him sleep, and that was shown by his craving for it. The pupils were only slightly contracted after the first injection, but subsequently they dilated, and continued so to the last. The patient spoke quite rationally, and was conscious within a few minutes before his death. In conclusion, I may mention that the dog was not shot until he had killed a number of geese and bitten another dog, which afterwards showed symptoms of rabies, and had to be destroyed.

LEICESTER INFIRMARY.

SERPIGINOUS ULCERATION OF BOTH CORNEÆ; DOUBLE IRIDECTOMY; RECOVERY, WITH EXCELLENT VISION IN BOTH EYES.

(Under the care of Mr. FRANK H. HODGES.)

A. W——, aged fifty, a weaver, was admitted into the Eye Ward on the 2nd of January, 1884. He had an ulcer of a horse-shoe shape, affecting rather more than the upper half of each cornea. Hot belladonna compresses and full doses of bromide of potassium were prescribed.

Jan. 5th.—The eyes were extremely painful; the ulceration of both corneæ was extending. Eserine and poppy fomentations were ordered.

6th.—Pain intense; no sleep last night, notwithstanding a full dose of liquor opii sedativus was given. Under chloroform an upward iridectomy was performed on both eyes.

8th.—Right eye ulcer healing; left ulcer is still deep and unhealthy looking. The eyes are easy since the operation.

15th.—Both ulcers slowly healing.

Feb. 12th.—Ulcers healed; to be an out-patient.

May 19th (four months after operation).—Vision: Right eye, $\frac{1}{10}$; left eye, $\frac{1}{5}$, and with appropriate glasses (+ 1·5 D.) fine type (0·5 Snellen) is read.

July 6th, 1885.—The patient has followed his occupation, that of a weaver, over twelve months, and often reads the newspaper without glasses. The corneæ are, to an ordinary examination, quite transparent, but on oblique illumination a semilunar haze in the upper quadrant marks the site of the corneal ulceration.

On July 9th, at the annual meeting of the Midland Branch of the British Medical Association, the case was examined by several members.

Remarks by Mr. HODGES.—The reason why I selected iridectomy in preference to Saemesch's corneal section was that the ulceration, though extensive, was for the most part superficial. To have commenced and finished the incision in a healthy cornea would have caused a long scar, and inevitably spoiled the eyes for optical purposes. This case occurred when I did not know the value of iodoform, which I have since used with brilliant results in corneal ulcerations, especially those of traumatic origin.

Reviews and Notices of Books.

A System of Practical Medicine. By American Authors. Edited by WILLIAM PEPPER, M.D., LL.D., assisted by LOUIS STARR, M.D. Vol. I. Pathology and General Diseases. Vol. II. General Diseases (continued), and Diseases of the Digestive System. Philadelphia: Lea Brothers and Co. London: Sampson Low, Son, and Marston. 1885.

[FIRST NOTICE.]

IT is twenty years since the publication of the first volume of Reynolds' System of Medicine proved how needful it was that if we were to possess a comprehensive account of disease, the work should be shared by many writers; for the domain of medicine had extended beyond the scope of the most industrious individual workers. Another ten years and the great Cyclopædia edited by Ziemssen carried us to the extreme limit of works of this class, and represented the outcome of the thought and scholarship of Germany. To the enterprise of the physicians of the United States we owe a translation of that great work, and now we have to welcome the appearance of the first volumes of a work which will fairly bear comparison with either of its predecessors. In no country has medical learning advanced with such rapid strides as in America. It possesses some of the best periodical literature of the day, and has produced some of the most classical treatises, for it numbers amongst its professors men who have spared neither time nor labour in the acquisition of knowledge. It was time, then, that America produced a system which should combine the fruits of so much learning and experience, and we have presented to us, without any preliminary flourish, the first instalments of such a work. It is intended to cover the whole domain of medicine, and the special departments will be fully represented. The list of authors includes the names of physicians whose reputation is world-wide, and if the promise which these first volumes bring is maintained to the end, the result will be a very solid and useful addition to our literature. In its general method and plan the work forcibly reminds us of the English System of Medicine; but it must be confessed that in the number of subjects dealt with and in the relative extent of the articles the present work is superior, although there are contained in the former certain unrivalled monographs. This comparison, however, is hardly a just one, for the subjects have grown much since they were dealt with by the contributors to the English volume, and Dr. Pepper and his coadjutors are in a more favourable position for presenting a complete "System." We trust that nothing will occur to delay the appearance at regular intervals of the subsequent volumes, and indeed the promptitude with which the second volume has followed the first is a good omen for a steady and uniform rate of publication.

The first volume opens with four articles upon general pathology and sanitary science. Dr. Reginald H. Fitz contributes the article upon General Morbid Processes, which surveys in a fairly comprehensive manner the present standpoint respecting these processes, and is most interesting in the sections devoted to Tuberculosis and Morbid Growths. This is followed by an article upon General

Etiology, Medical Diagnosis and Prognosis, by Henry Hartshorne, M.D.—subjects which admit of a very wide treatment, but are judiciously kept within due limits by the writer. He thus classifies the causes of disease:—"1. Prenatal causation—viz., hereditary transmission of a proclivity to certain disorders, and also the influence of circumstances acting on either parent at the time of conception, or on the mother during gestation. 2. Conditional causation—i.e., that belonging to variations of temperature, humidity, &c., affecting individuals. 3. Functional causation—that which is connected with excessive, deficient, or abnormal exercise of any of the functions of the economy. 4. Ingestive causation—e.g., bad diet, intemperance, and poisoning. 5. Enthetic causation—viz., that of all contagious, endemic, and epidemic diseases. Closely allied to this is epithetic morbid influence—namely, that of the parasites producing certain affections of the skin, as itch, favus, &c. 6. Mechanical causation: the effects of this belong chiefly, though not exclusively, to the domain of surgery." Each of these topics is discussed in turn; and we may especially commend the survey given of inherited disease. Naturally, space is devoted to a consideration of bacteriology as a factor in the production of disease; but although the writer feels constrained to hold that the precise influence of microbes as disease-producing agents is yet undecided, he avers that practically the measures taken to prevent microphytic invasion are the most useful in attacking infective disease. He truly remarks that "the present may almost be said to be, in the history of medicine, an era of myco-pathology." The section devoted to Diagnosis is full of practical information, marking its author as an accurate clinical observer, and one who also can give verbal expression to the varying signs of disease. The article on Hygiene has been entrusted to Dr. John S. Billings, so that it is almost superfluous to say that it is marked by literary excellence and abounds in clear practical instruction. As the causation of disease is discussed in this article, it necessarily traverses, but by a different path, the ground covered in the early portion of the previous article. It is further supplemented by a contribution from a sanitary engineer, Mr. G. E. Waring, jun., dealing with Drainage and Sewerage.

The subject of Typhoid Fever is dealt with by Dr. James H. Hutchinson, who prefers to retain the word "typhoid" rather than employ that of "enteric," which he considers objectionable for bringing into undue prominence the intestinal lesions. In his sketch of the history of the subject he attributes, and with reason, the right of the earliest distinction between typhus and typhoid to Gerhard of Philadelphia,[1] but singularly omits all mention of the essay of Dr. A. P. Stewart (1840), which the New Sydenham Society has lately rescued from unmerited oblivion. The etiology of typhoid fever is fully discussed, and the writer shows that many, if not most, cases of alleged "spontaneous origin" may be explained by transmission, especially in view of the fact that the dejecta may retain their infective properties for a long season. The "bacillus typhosus" is glanced at only to be dismissed as being yet unproved. The descriptions of the morbid anatomy and the clinical symptoms of the disease are clear and accurate, and we note the opinion that there is no condition in typhoid fever so grave that recovery from it is impossible, not even perforation, a statement which we find it difficult to substantiate. We are rather surprised that no reference is made to the labours of Pearson Irvine upon the relapse of typhoid fever, for there has been no more critical study of this subject yet written. In the section upon treatment Dr. Hutchinson says that under certain circumstances, as in the case of residence in large towns during the hot season, he would advocate the removal of the patient to the seaside in the early stage of the disease, considering that the risks of such removal are far less than those which would be encountered if the patient were left in the hot city. The "cold water" treatment is of course mentioned, and its various forms of application discussed; whilst amongst antipyretics, quinine and sodium salicylate are mainly spoken of. It is one sign of the rate at which therapeutics move nowadays, that in these pages no mention is made of kairin, or the more active and reliable antipyrin, which will apparently supersede the adoption of other antipyretic remedies in fever. Dr. Hutchinson also contributes the article on Typhus Fever, whilst that upon Relapsing Fever is dealt with by the editor, Dr. W. Pepper, who has utilised to an admirable degree the material afforded by his experience at the Philadelphia Hospital, combined with an extensive knowledge of the literature of the subject. Dr. Pepper seems unwilling to admit as proved the causal relation between the spirillum and the disease; but he regards the discovery of this organism as affording an important aid in diagnosis. Relapsing fever is happily now almost banished from this country; but the conditions under which the disease arises forbid us to hope that we have seen the last of it. The need therefore of such excellent clinical descriptions as the one here given is obvious, as the time may come when the profession in England will become as familiar with it as it was to the last generation.

Variola, Vaccinia, and Varicella have been entrusted to the pen of Dr. James Nevins Hyde. The prodromal roseola of small-pox and its differentiation from scarlatinal rash are dwelt on, and the description of the disease is given in a succinct manner. The anatomy of the variolous pock and pustule is based upon the studies of Auspitz and Bash and Heitzmann, and considerable attention is given to the important question of differential diagnosis. The writer's article on Vaccinia strikes us as one of the most candid and lucid that have been written upon this much-discussed topic. He is not so blind as to refuse to grant that vaccination sometimes fails to protect, but he rightfully declaims against the tendency to irrational generalisation which sees in this fact the condemnation of the practice. His statement appears to us as particularly fair—viz., that "vaccination almost invariably protects against small-pox for the time being; generally for a long term of years; sometimes for a lifetime. Often the protection is absolute; as a rule it is very nearly so; in rare instances it is trifling." Again, in dealing with the complications of vaccination, he takes up a very candid position with regard to the risks of erysipelas, of vaccinal syphilis, &c. He declares in favour of bovine over humanised virus after a full discussion of the arguments on either side, saying that "in barely one particular—that of promptness of action—can humanised virus justly be credited with any superiority, while in every other essential respect it is inferior, so far as any difference is to be observed." At the same time he does not admit that there is any proof of the deterioration of the Jennerian vaccine. Dr. J. Lewis Smith writes upon Scarlet Fever. The nature of the virus, whether organised or chemical, is admitted to be undetermined, but ample instances are given of its well-recognised tenacity. A section is devoted to surgical scarlet fever, in which the writings of Howse and Goodhart are especially adverted to, and the opinion is expressed that in a certain number of cases the affection is genuine scarlet fever, but in others, especially where there is no faucial redness, the diagnosis is doubtful, or the disease may be regarded as septicæmic erythema. Obstetrical Scarlatina is also discussed, and the views of Braxton Hicks and Playfair receive prominence. The clinical account of the ordinary disease and of its various types is followed by a very full discussion of the complications and sequelæ, and especial consideration is given to diphtheria as a distinct complication. The section on Morbid

[1] American Journal of the Medical Sciences, 1837.

Anatomy contains a full summary of Klein's research upon the renal lesions, and the section upon treatment is equally comprehensive with the rest of the article. Then follow articles on Rubeola and on Rötheln by Dr. W. A. Hardaway; upon which we need do no more than express the satisfaction that the latter affection has fully received due recognition. What may be its real nature, and what may be the precise relations it holds to scarlet fever on the one hand and to measles on the other, our present knowledge does not enable us to say; but that it is a perfectly distinct affection from either—a specific entity—we may now be well assured. Unlike either of its allies, it never, we believe, assumes a malignant type, but invariably runs a mild and mostly uncomplicated course. Dr. Hardaway states that there is no trustworthy record of a second attack of rötheln. The subject of Malarial Fevers is dealt with under one head by Dr. Samuel M. Bemiss of New Orleans, who also contributes the article on Yellow Fever. The space devoted to the consideration of malarial fevers is not large. Intermittent fever is first discussed, then remittent, then pernicious malarial, and, lastly, typho-malarial, which is defined as that "class of malarial fevers which are complicated by the specific poison which produces typhoid fever." Without attempting to judge of the propriety of this nomenclature introduced by Dr. Woodward and sanctioned by the Philadelphia Congress, it would perhaps conduce to clearness if we were to regard these cases as essentially typhoid fever modified by the malarial poison. At any rate, the disease so indicated is a remarkable instance of the co-existence of two distinct morbific agencies.

Analytical Records.

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THIS water contains the sulphates of magnesium and sodium in unusually large quantities, and only a small quantity of calcium salts and chlorine. It is an admirable aperient water—one of the most powerful, indeed, that we have examined, and may be used with perfect confidence. Judging from published analyses the Hungarian waters are the most active aperients of any in use. Many of the most celebrated German saline waters are all but useless in this respect.

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FRY'S PURE CONCENTRATED SOLUBLE COCOA.

Pure, free from added starch and sugar, not too rich, and very soluble; in fact, its description agrees exactly with its composition. We wish we could say as much for every popular article of food.

ANOTHER BANQUET TO FERRAN. — A banquet was given in the city of Reus in honour of Dr. Ferrán, and, as the *Independencia Médica* expresses it, his "transcendental invention." Covers were laid for seventy guests, amongst whom were representatives of the medical profession, of the press, and of the commercial and industrial classes.

"VICARIOUS MENSTRUATION."

To the Editor of THE LANCET.

SIR,—Your last number contains a very interesting lecture by Dr. Wiltshire on the above subject. It is so complete in its large quotation of references in proof of the existence of this remarkable phenomenon, that it seems almost rash for anyone to raise a doubt on the subject. Yet I am still, as I have always been, sceptical about it, never having witnessed a case of the kind, and as regards the historical authority, I do not think this is worth much. I have on my shelves a book clearly proving the existence of witches, as history at all times in all countries makes mention of them—and yet we do not see them now.

I wish some of the gentlemen at present living, of whom the lecturer makes mention, would record their cases in detail. All the so-called cases of vicarious menstruation which have come under my notice have broken down on investigation, so that I remain an unbeliever until I myself have witnessed an instance of it, or heard of one from some trustworthy witness. I think so simple a question ought to be settled by the writers of medical books, for at present students are strongly impressed with its frequency; so that it is not unusual when under examination, and asked the causes of hæmoptysis or hæmatemesis, for them to give vicarious menstruation as the first cause. I have never seen it in the one or the other.

I am, Sir, yours truly,

Grosvenor-street, Sept. 21st, 1885. SAMUEL WILKS.

SANITARY CONDITION OF ALDERSHOT AND ADJACENT DISTRICTS.

To the Editor of THE LANCET.

SIR,—Referring to your article with the above heading in last week's LANCET, allow me to remark that the Blackwater River—which is the chief watershed for the above-named district, and which roughly speaking is the boundary between the Frimley, Ash, and Aldershot sub-registration districts of the Farnham Union and the Farnborough sub-registration district of the Hartley Wintney Union—is choked full with sewage, which originally found its way into it in all its purity, or rather impurity, from Aldershot town and South Camp, and, in a minor degree, from other sources along its course. Within the last thirteen years I have never ceased to point out that this river is for many miles nothing better than an open sewer, that the land on either side is waterlogged, and that it is impossible for the wells to be other than contaminated. I regret that I did not see Dr. Sweeting when in the neighbourhood, nor have I seen his report in full, but it is evident that one of the first and paramount duties of the sanitary authorities is to have this river properly cleaned out. I am glad to say that there is at last a prospect of this being accomplished. A few years ago I applied to the Thames Conservancy Board, whose officer was kind enough to pay me a visit and examine the river; but as his powers ended at a distance of over ten miles from the banks of the Thames, he was powerless to act. The Blackwater enters the Loddon, which, in its turn, empties into the Thames above the intake of the London Water Companies. It is an insult to common sense to say it has been determined, even approximately, how far water or sewage containing the germs of disease must travel, or to what extent it must be diluted before being rendered harmless. If it is argued that the sewage of Aldershot town and a portion of the South Camp—including the splendid new military hospital—(as to the latter I am subject to correction) is properly purified, filtered, and disinfected *all the twenty-four hours round* before the efferent sewage is allowed to flow off into the Blackwater, I am misinformed. Should the germs of cholera or enteric fever obtain a "pass" into this stream—for years most beautifully prepared for their reception—then! But comment is needless; I for one would tremble for the result.

I am, Sir, your obedient servant,

C. J. DENNY, M.R.C.S. Eng., &c.,
Medical Officer of Health, Hartley Wintney Rural
Blackwater, Sept. 21st, 1885. Sanitary Authority.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 26, 1885.

QUESTIONS OF CASUISTRY IN MEDICAL PRACTICE.

CERTAIN questions of casuistry have recently been raised, as they will continue to be raised, while human nature remains as it is, and human affairs as tangled as they are. What is my duty to the burglar that would rob my house, or the murderer that pursues my child or my friend? Am I to facilitate operations by a display of candour and simplicity, leading the thief to any drawer that contains an exceptional jewel, and giving the murderer, on his request, the truest information and the shortest cut to the object of his foul purposes. Is the "pearl" of truth to be cast before such "swine"? Is it my duty to truth itself to use it so? What are my respective obligations to the burglar and murderer on the one hand, and to my child or bosom friend on the other? These are questions which have engaged the minds of the greatest theologians and moralists, and will continue to engage them. It does not fall to our care in particular to answer them. But we belong to a profession in which very nice questions of truth and obligations to truth fall to be decided. The question that perplexed PILATE more than it need to have done, perplexes us often reasonably enough—What is truth? We see a case, and we think it resembles another that we have seen. We call it one of cancer, or consumption, or albuminuria, or cardiac murmur. We, on a hasty or superficial view, fancy that by such a label we formulate the whole truth, and if we are of a dogmatic turn, and think truth so easily discovered and so easily expressed, we are apt to blurt it out as a common thing that anybody may have, or as an intimation that may magnify us in the estimation of the vulgar. A mind at once modest and serious does not so deal with truth. It perceives that truth is a thing of great delicacy and of wide relations, and that truth about disease is particularly difficult to find and exhaust; and yet further, that truth about disease in any one given human being is a special thing; not to be understood by reference to what seems the similar case of another human being; not a thing to be tossed about off-handedly, but to be ascertained carefully and used discreetly. The late Dr. STOKES of Dublin used to tell an anecdote of a physician who was supposed to be very learned in the knowledge of heart disease. A distinguished public man, filling a high office, and filling it well and with great advantage to the public service, knew that he had a faulty heart. Being near the great cardiologist, he thought he would hear what he had to say. The physician applied his stethoscope, and shortly after said: "Sir, I hear your death-knell." True enough in one sense. The gentleman never looked up after. But Dr. STOKES—no mean authority—attributed his early death, not to the cardiac lesion, which he thought might have lasted for years without any curtailment of the great public usefulness of the patient, but to the physician, whose indiscretion, not to say whose folly, prompted him to make such a murderous use of his office. But perhaps, an objector will say, he spoke the truth—truth which it was important for the patient to know. This brings us to inquire seriously into the nature of the duties of the physician. His duty is not to deliver dogmatic opinions on the probable or possible course of the disease under which his patient labours. His duty is to save life—for years if possible, for months if the prolongation for years be impracticable, for weeks, or days, or hours; but to save life, to make it longer than it would be but for his intervention. The cardiologist in question destroyed life. He deliberately did the very opposite for his patient of that which he should have done. The patient died, not of the mechanical lesion of which the physician heard the sound, but of the nervous shock produced by his own monstrous exclamation. But perhaps an objector will ask: "Is truth not to be spoken?" Well, even truth is not always to be spoken. "I have yet many things to say unto you, but ye cannot bear them now." Truth is a precious thing, to be used delicately and with economy, delivered in such doses and at such times as wisdom and kindness dictate. It is a strong medicine, to be administered cautiously. But in the case of the physician in question, he had not hold even of the truth. Sudden death in a patient with heart disease is not nearly so often the mode of death as is supposed. Such patients often outlive, and die more gradually than, others. And even when sudden death occurs, it is not so much the lesion as the appearance of other factors which determines the event—such as the degeneration of muscle or nerve structures, a process which goes on at scarcely the same rate in two different persons, owing to the extreme variety of human constitution and circumstances. It is well for all men roughly to number their days, and men with grave diseases need generally very slight hints from the physician to do so. These hints should not be withheld where circumstances call for them; but they should be so administered by the physician as not to oppose his great efforts and his principal duty—that of prolonging life and the serenity of life.

The same principles apply to other questions than prognosis, upon which we have not space to dwell; questions of secrecy and confidence affecting various persons in a different degree besides the immediate patient, where the loud and indiscriminate expression of truth might do an amount of harm altogether disproportionate to any good, and where, again, delicacy and kindness are to guide the physician.

A SUPPLEMENT to the *Monatsheft für Praktische Dermatologie* contains some interesting studies of Leprosy by Professor BAELZ of Japan, Professor E. BUROW of Königsberg, Dr. P. G. UNNA of Hamburg, and Dr. A. WOLFF of Strasburg. The last-named gentleman seized the occasion of his visit to the Congress at Copenhagen to study the disease in the Norwegian Leper Asylums, and his paper contains a recital of his experiences. He starts with a discussion of the vexed question whether leprosy is infectious, whether it is hereditary in the strictest sense of the term, or whether it is both hereditary and infectious. The chief arguments against contagion are, firstly, that it cannot be proved; for example, DANIELSSEN never traced a case to contagion in a hospital. Experience of the numerous cases that come into England also show that if leprosy is contagious, it is so

only under special conditions, which rarely, if ever, exist here. Secondly, some significance may be attached to the fact that inoculation experiments on animals have practically failed. The advocates of contagion, however, point out the facilities for contagion in Norway in the uncleanliness from want of water, the limited sleeping accommodation, and the intimate intercourse of lepers with their families. The occurrence of numerous cases where a member of a perfectly healthy family resides in an infected district and contracts leprosy, points either to contagion or an origin *de novo*. The continued diminution of fresh cases of leprosy in Norway since 1856, in proportion to the completeness of the isolation arrangements, cannot be ascribed to the influence of heredity, because leprosy is atavistic, and the time is too short. Further, the historical arguments are considered of value, such as the disappearance of leprosy from Europe under severe isolation, and the history of its importation and spread in Surinam and the Sandwich Islands. Lastly, there is the presumption derived from the discovery of the bacillus lepræ and the striking evidence brought forward by HANSEN, of individual cases of contagion and the spread of the disease in families and up the coast. In the light of the observations of others we may set down as erroneous the statement of ZAMBACO, that children of tainted parents are born leprous. The great majority of cases first show signs in the teens, or later. HANSEN is also strongly opposed to the idea of the strict heredity of leprosy, and there can be no question, that it is not entirely hereditary. Statistics, it is true, make it appear to be mostly a "family disease," but with several curious features. It is not difficult, however, to make out a strong case against heredity, although it is quite possible that a predisposition is inherited. Certainly the members of a family are, as a rule, most exposed to contagion, and the difficulty of tracing the latter is immensely enhanced by the existence of a prolonged incubation stage. Other interesting points touched on by Dr. WOLFF are the greater severity of the disease in one part of the country—e.g., Drontheim—than in another, as Bergen; the causation of the claw-like hand by the shrinking and alteration of tendons and their sheaths rather than by nerve changes and muscular wasting; the absence of eruption from the scalp; the modification of the tubercles in different parts of the body; and the nature of macular leprosy, whether a reflex vaso-motor phenomenon (CÆSAR BOECK), due to central irritation or arising from an affection of the peripheral nerves.

Dr. E. BAELZ contributes a sketch of the disease in Japan. Whilst it is spread in moderate proportion over the whole dominion, some districts, especially in the southern regions, and some outlying mountainous regions and islands, furnish more cases than other parts. There is comparatively little in the towns. Dr. BAELZ has never seen a leper in the higher classes, but the peasants are those chiefly affected. Women escape more than men; and the youngest patient was eleven years old. The despised and shunned caste called the Eta, who lived till lately in entirely isolated villages, are said to suffer most. On the whole, the disease is of a mild type, and is probably on the decline. He also discusses the etiology at length, and comes to the conclusion that, notwithstanding the conditions under which the poorer classes live are especially favourable to the propagation of leprosy, the disease can only be infectious under very limited conditions, such as inoculation of the virus into some abraded surface, and even then probably a special predisposition is required, as with tuberculosis. On these grounds he makes an eloquent appeal against adding the miseries of isolation to the lot of the leper in the East. With regard to treatment, he has found some benefit from ol. dipterocarpi and ol. eucalypti, and more from ol. gynocardiæ used internally and externally; none from pilocarpine, arsenic, mercury, and iodine.

By far the most important are Dr. UNNA's three papers: on the "Cure of a Case of Lepra Tuberosa;" on the "Methods of Preserving Aniline Coloured Bacillus Lepræ"; and on the "Histology of the Leprous Cutis." From a study of the distribution of the bacilli around the course of the blood supply UNNA concluded that the organisms required much oxygen, and he therefore determined to energetically use oxygen-absorbing remedies—viz., pyrogallol, chrysarobin, resorcin, and the ammonium salt of sulpho-ichthyolic acid. He began treatment on December 18th, 1884, and on April 5th, 1885, the patient was dismissed, apparently quite cured without any sign of her former extensive eruption, and greatly improved in general health. The ichthyol salt may be taken indefinitely, and after a short time averaged 1·0 per diem in ten pills of 0·1 each. Without relating in detail the vigorous external treatment, we may say that, first, UNNA tried all four agents simultaneously on different parts, and afterwards selected only resorcin and ichthyol. He used ointments, lotions, plasters, and his muslins bandaged on, and baths were taken daily for most of the time. His conclusions are as follow:—The disagreeably-smelling ichthyol salts (ointments of 50 per cent. and 66 per cent. strength) are to be recommended externally for weak constitutions, very sensitive skins, or when the surface has been much affected by stronger remedies. Resorcin, as suggested by ANDEER, in a strength of 20 per cent., causes some pain, but stains very little, does not smell badly, and, moreover, does not injure the general health. Pyrogallol must be applied as a 5 per cent. ointment, except to inveterate patches, and only to limited surfaces, as the head, neck, and hands. On two occasions during the treatment UNNA had to counteract its poisonous action and the alkalescence of the blood by muriatic acid in full doses. Lastly, chrysarobin is still more powerful, and may be used with great success to the body and arms. Its disadvantages are well known.

For the preservation of the bacillus UNNA recommends a "method of desiccation" in preference to the old "method by oils." We must await confirmation; but he upsets all our received notions on the bacillus. Thus he claims that his method gives a true picture of the numeral, topographical, and morphological relations of the organism. He does not believe they lie in special cells at all, but the colonies cluster on the inner wall of the lymphatic channels. For the able arguments by which he supports these conclusions it is only right that reference should be made to his paper.

We will just refer to one other point. All observers, except THIN, agree that the bacilli are not found in the epithelial structures over the papillæ, but are even

separated by a narrow zone of cutis. UNNA so far agrees, but his preparations show that heaps of bacilli invade the lower part of the hair-follicles, traverse the external root-sheath, and travel upwards between the hair and root-sheath, where they may be seen accumulated in masses in the follicles. They do not therefore respect the epithelial formations as such, but select the hair-follicles on account of the increased blood-supply there.

THE most powerful objection urged by the opponents of the Contagious Diseases Acts is that they are directed unfairly against one sex for the benefit of the other; in other words, that they act harshly and unjustly towards women in order to provide for the safe sensual gratification of men. It is almost needless to observe that such assertion is a sensational misrepresentation of the facts. The Acts are not directed against women as a sex at all, but against those women who make a trade of prostitution, which, as it directly causes diseases to themselves and others, must be considered as a dangerous trade. But the operation of the Acts was much more circumscribed than this. They were applied to certain naval and military stations in England and Ireland, eighteen in number, and to them only. It has always happened that wherever soldiers were encamped there were to be found, sooner or later, a large number of prostitutes of a very low class in close proximity to them; and all naval seaports, notably Portsmouth, Plymouth, and Devonport, have long had a most unenviable reputation for the large number and low condition of the loose women always to be found there before the passing of these Acts. What the condition of these naval and military stations was only a quarter of a century ago may be judged from the concluding paragraph of the Report of a Select Committee of the House of Commons, published in 1862:—

"Your Committee have refrained from entering into the painful details which have come to their knowledge of the state of our naval and military stations at home as regards prostitution. These facts are so appalling that they feel it a duty to press on the Government the necessity of at once grappling with the mass of vice, filth, and disease which surrounds the soldiers' barracks and the seamen's homes, which not only crowds our hospitals with sick, weakens the roll of our effectives, and swells the list of our invalids, but which surely, however slowly, saps the vigour of our soldiers and our seamen, sows the seeds of degradation and degeneracy, and causes an amount of suffering difficult to over-estimate."

By the Acts of 1864 and 1866 attempts were made by the Government of that day to grapple with the evil, and how successful these were may be judged by the Report of the Select Committee of 1869, which bears strong testimony to the benefits, both in a moral and sanitary point of view, which had already resulted from it. "Prostitution appears to have diminished, its worst features to have been softened, and its physical evils abated." This same Committee recommended certain alterations which were embodied in the Act of 1869, and suggested further inquiry, "with the view of ascertaining whether it would be practicable to extend to the civil population the benefits of an Act which has already done so much to diminish prostitution, decrease disease, and reclaim the abandoned." The Royal Commission of 1870, on this point, reported:—

"Soldiers and sailors under the influence of drink are no longer importuned and seized upon by filthy prostitutes, as they were in former days. It is true that the ameliorated state of things is attributable in some degree to causes independent of the Acts for prevention of contagious disease. ..... The Contagious Diseases Acts, however, have, both directly and indirectly, promoted the objects of sanitary and municipal police. They have purged the towns and encampments to which they have been applied of miserable creatures who were mere masses of rottenness and vehicles of disease, providing them with asylums where their sufferings could be temporarily relieved, even if their malady was beyond cure, and where their better nature was probably for the first time touched by human sympathy."

It has been shown in previous issues of THE LANCET that the effects of the Acts were such as to eradicate juvenile prostitution altogether in the several districts, while at the same time the hospitals and wards provided by the Government for the cure of these women exceed by nearly two beds to one all that voluntary efforts have been able to effect in the three kingdoms within the last century and a quarter. It is now evident that besides all this they were successful in reducing disease among the women to whom they were applied, and these women were the first to feel the benefits of the Acts. To complain, therefore, of the Acts as dealing harshly with them is alike unjust and absurd. All these beneficial results of the Acts were amply proved before the Select Committee of the Commons, which sat for four years and reported in 1882. In their report it is stated:—

"There can be no doubt that in the subjected districts the number both of prostitutes and brothels has, since the Acts, largely decreased. ..... But without pushing the argument *post hoc ergo propter hoc* too far, your Committee feel that they are justified not only by a comparison between the condition of the subjected districts before and after the Acts, but by comparison between the present condition of these districts and that of other large towns, in setting down a main portion of these good effects to the credit of the Acts."

Much of this diminution was accounted for "by the excellent spiritual and moral influences brought to bear on the women while in hospital, and the successful efforts made by the superintendents and chaplains of these hospitals to place them in the way of obtaining a decent and respectable livelihood after their discharge."

Now all this has been upset by the resolution of 1883, which prevented the compulsory examination of these women, and so made the Acts almost a dead letter. In his speech before the House of Commons on July 27th last, Mr. CAVENDISH BENTINCK gave the following sad results of the present condition of some of the subjected districts:—

"In the Government wards of the London Lock Hospital, the average number of women admitted from the protected districts in connexion with the hospital was about 500 a year, and the majority light cases. In the year ending June 30th, 1882, the cases of gonorrhœa were 183 out of 464 admissions, and the cases of secondary syphilis were only 33 per cent. upon the whole number of 464, while the average duration of treatment of each patient was only about twenty-three days; but in the year ending June 30th last, the number of admissions had fallen from 500 to 110, the proportion of

cases of secondary syphilis had risen to 78 per cent. of the whole number, and the average duration of treatment of each patient had risen to fifty-one days. Out of these 110 cases, eighty-five were secondary syphilis, one tertiary, eleven primary syphilis, and the residue gonorrhœa."

Well might the right honourable gentleman describe this as an appalling state of things—one which showed how the suspension of these Acts had been the cause of increased suffering to these unfortunate women. Nor was this all. Of these 110 patients, thirty were twenty years of age, and of twelve patients in the Government ward at one time, one had been under treatment for six months, two for three months each, two of them had been in once before, one had been in twice, one three times, one five times, and one no fewer than thirty-one times. At the Chatham Lock Hospital, when the Acts were in full force, the highest number admitted was in 1872, in which year there were 702 cases; the lowest in 1876, when there were 436 cases admitted. On the withdrawal of the police the Shorncliffe district was added, and even with that addition, in the twelve months dating from June 6th, 1884, to June 6th, 1885, only 175 cases have come in. Miss WEBB, the Lady Superintendent of the hospital, in a letter which Mr. BENTINCK read, remarked:—

"Knowing, as we all do, the immense increase of these unfortunate women in these towns since the Contagious Diseases Acts police have been removed, it is fearful to contemplate how many ought to come in compared with those who do so, and the terrible mischief accruing in consequence. With regard to the condition of the patients since the alteration of the law, there is a marked difference for the worse, and, moreover, it takes in most cases many months for their cure.....This class of women will not seek admission till they feel absolutely compelled, and many who come in are sad wrecks, under twenty years of age."

Similar testimony to the evil results which have followed the abolition of compulsory examinations could be obtained from the other districts, all of which are falling into the same appalling state as they were in the year 1862. It is for the inhabitants of these districts to say, through their representatives in the House of Commons, whether they are content that it shall be so.

WHILE the subject of funeral reform is still being kept prominently before the public, it will not be unprofitable to notice again the principal matter in which reform is still needed in Christian burial. We say this advisedly, since the Jews have in later years been conspicuous for the simplicity of their funerals, and the deviations from simple burial in the earth have occurred in recent times and in Christian countries. It would be well if this much-needed reform were not limited to the Church of England but made national, embracing all sects among whom reform is needed. Now, the subject of modern burial may be considered under four aspects—(1) legal, (2) sanitary, (3) religious, and (4) sentimental. As regards the first we have a most excellent definition of what burial ought to be in the judgment of the late Lord STOWELL, delivered many years ago in the case of GILBERT *v.* BUZZARD and BOYER. The forcible reasoning and common sense of his lordship's remarks hold good to the present day: "In what way the mortal remains are to be conveyed to the grave, and there deposited, I do not find any positive rule of law, or of religion, that prescribes. The authority under which the received practices exist is to be found in our manners rather than in our laws; they have their origin in natural sentiments of public decency and private affection; they are ratified by common usage and consent; and, being attached to a subject of the gravest and most impressive nature, remain unaltered by private caprice and fancy, amidst all the giddy revolutions that are perpetually varying the modes and fashions that belong to the lighter circumstances of human life. That bodies should be carried in a state of naked exposure to the grave would be a real offence to the living, as well as an apparent indignity to the dead. Some involucra, or coverings, have been deemed necessary in all civilised and Christian countries; but chests or trunks containing the bodies, descending along with them into the grave, and remaining there till their own decay, cannot plead either the same necessity or the same general use..... The rule of law which says that a man has a right to be buried in his own churchyard is to be found most certainly in many of our authoritative text writers; but it is not quite so easy to find the rule which gives him the right of burying a large chest or trunk in company with himself. That is no part of his original and absolute right, nor is it necessarily involved in it. That right, strictly taken, is to be returned to his parent earth for dissolution, and to be carried thither in a decent and inoffensive manner. When these purposes are answered, his rights are, perhaps, fully satisfied in the strict sense in which any claim, in the nature of an absolute right, can be deemed to extend." It is therefore clear from all this that the simplest form of burial is not only in strict accordance with law, but that it is the only form of burial which can be legally demanded.

Passing on to the sanitary aspect of the question, it is known beyond all dispute that earth to earth burial is the form which is least injurious to the living, as well as the most natural means of disposal of the dead. There is no more perfect preventive of noxious emanations than "mother earth," provided burial be sufficiently deep and in a suitable, well-drained soil. On the other hand, vaults, catacombs, and bricked graves, with stone slabs placed between each coffin, are all more or less a source of danger to the living as well as a mockery of burial of the dead. Even if the soldering of the lead coffin and the cementing of the bricked grave have been done in a thoroughly efficient manner, which is assuming a great deal, the best solder and cement will give way sooner or later, and the result will be noxious emanations of the most dangerous kind. The simple grave, containing only the skeleton, is seemly, natural, and perfectly inoffensive. The burst lead coffin, with its slimy exudations and sickening effluvia, is as repulsive a sight as could be imagined. It must not be forgotten that it is impossible to have now a perfectly isolated cemetery—there must be dwellings for the officials; and wherever a cemetery is now planted a new neighbourhood springs up.

Coming to the religious aspects of burial, argument seems almost superfluous. The Order for the Burial of the Dead, in the Book of Common Prayer, which is used extensively by Nonconformist ministers, makes no mention of any coffin, and directs that earth shall be cast upon the body, which "we commit to the ground, earth to earth, ashes to ashes, dust to dust." In the Church of Rome simplicity of burial is not only implied by the words of

their office, but also by the teaching and example of their bishops and priests. Nor have examples been wanting in the Church of England. The saintly Bishop WILSON by his will directed that his body was to be buried in the churchyard, and not beneath the church, believing that the latter practice was prejudicial to the living. In more recent times the late CHARLES KINGSLEY was by his expressed wish buried in a plain grave in his own churchyard. Numerous other instances might be adduced to show that that form of burial which prevents or retards the restoration of the body to the earth in the literal sense of the words has not the sanction of any religious teaching.

Last, but not least, comes the sentimental aspect of burial. Members of the same family would fain follow the example of SAUL and JONATHAN, "and in their death they were not divided." It is most probably this feeling which prompts the continuance of family vaults, and what Lord STOWELL appropriately termed large chests or trunks, as the conventional triple coffins still continue to be. The same object might be obtained in a perfectly unobjectionable manner, and in perfect accordance with law, health, and religion. Family grave-plots, placed side by side, opened in turn at reasonable intervals, and with the adoption of the simplest form of coffin, may last not only the same family, but their descendants, for generations. In other words, let our present cemeteries be treated as some of our older village churchyards have been, and they will, like the latter, last for centuries. The capacity of a vault or bricked grave containing a lead coffin is limited; that of a grave containing a perishable wooden coffin is almost unlimited. This is the real reform neededr but it will require a most vigorous effort to effect. The modern undertaker has been shorn of much of his forme, profits, and it would be contrary to human nature if he did not cling to the lead coffin and polished oak case, with all its profitable surroundings, increased work, additional bearers, &c. The burial of any individual, whether nobleman or artisan, ought to be such as the humblest village joiner and sexton could undertake; and all that is required to ensure this very desirable reform is that it should be made fashionable. Once let this be decreed by the example which is better than precept, and that mode of burial which, as we have seen, has legal, sanitary, and clerical sanction will come to be universally adopted.

IN his Cantor Lectures, which have just been published, Dr. G. V. POORE has done wisely in not restricting the meaning of the word climate within too narrow boundaries, for perhaps the most interesting portion of the story which the author has to tell relates to the opportunity given by the atmosphere for the conveyance of disease particles from one place to another, and for their subsequent operation. Thus the potato blight, the Peronospora infestans, requires two conditions for the destruction of the potato: the one by which the blight is enabled to settle, the other by which it is given opportunity for development. The conditions which allow of settlement of particulate matter are well described by Mr. W. H. POWER in his admirable report on the Influence of the Fulham Small-pox Hospital, where he points to the still or gently moving atmosphere which can be best seen in the movements of particles forming mist and fog. But settlement must be followed by warmth and moisture, for without these the development of the fungus will not take place. So Mr. POWER found that certain atmospheric conditions were especially favourable to the production of small-pox in the neighbourhood of a small-pox hospital. It is now nearly half a century ago since Sir THOMAS WATSON discussed the probability that epidemic influenza was due "to the presence of innumerable minute substances endowed with vegetable or with animal life, and developed in unusual abundance under specific states of the atmosphere in which they float, and by which they are carried hither and thither." Although our knowledge of this disease has not increased materially since that time, there is greater reason for believing that Sir THOMAS WATSON'S view is less fanciful than he was himself disposed to regard it. Dr. POORE'S lectures will well serve to direct more general attention to the action of the atmosphere in this respect. The other subjects which are discussed are well considered; the relation of soil to disease, the effects of latitude, heat, light, and barometric pressure are all touched upon, and the three lectures form as interesting and complete an account of the influence of climate as could be conveniently given in the short time allotted to the lecturer.

Annotations.

"Ne quid nimis."

ALDERSHOT AND ITS SURROUNDINGS.

WHEN we drew attention some weeks ago to the insanitary condition of Aldershot, we were not aware that an inquiry was proceeding by authority of the Local Government Board, and that a report was about to be made by one of the Local Government sanitary inspectors. Our annotation was based on knowledge derived from quite an independent source, and we knew sufficient to have justified an inquiry by one of our own "LANCET Commissioners," had not the end we had in view been in the mean time accomplished by a Government inquiry, which confirms what we have said on the subject. But the inquiry does more than this, for it represents that the sanitary condition of the larger part of the district between Wellington College and Aldershot, embraced by the Farnham registration, is very unsatisfactory. Those who travel on the South Eastern Railway between Reading and Reigate can observe for themselves the peculiar nature of the district between Wellington College Station and the station at Aldershot. In this part of the pine forests the low-lying marshes form an ever-green, grassy oasis, through which the Blackwater, a distant tributary of the Thames, marks the line of an ancient river, but now deposits in the form of black mud make up this extensive diluvial tract. These marshes were within memory the favourite resort of the sportsmen for snipe, but the huntsman could not now even trust himself to ride across them. During the drought of the past summer, when all around was arid and parched, these extensive tracts were green with couch-grass and sedge. Within this district, or quite adjacent to it, stand the great educational institutions for the army. From Wellington College the officer of the future goes to the Royal Military College at Sandhurst; thence, when gazetted, to his regiment, to Aldershot, and from there to the more active service of his profession abroad. On his return, if he is an officer of promise and emulation, he proceeds to study again at the Staff

College, which is a separate institution, but adjacent to the Royal Military College. Whatever may be done by the governing authorities of these institutions to perfect their own sanitary arrangements, they can never secure themselves from sharing the risks of this rapidly increasing neighbourhood, made up largely of their own dependents. Nor can they escape by any partial drainage of their own grounds the unwholesome influence of these extensive marshes. In the interest of the army as well as the inhabitants, it is imperative that this important subject should not be permitted to rest. It may be a great engineering problem how these marshes can be best drained, and it may be impossible to make them as healthful as the hills around, like those on which Broadmoor State Lunatic Asylum stands, or the Collingwood Court Orphan Asylum, near Bagshot, or the many picturesque red-brick houses which are dotted about on the fir-capped hills and the higher grounds. But this is no reason for neglecting to make the locality less insanitary than the Government inspectors report proves it to be. Those who read the interesting communications from the cholera districts of Spain will see that low-lying muddy marsh lands like those of the Blackwater marshes mark the track of cholera there as they do elsewhere, and we have the highest authority for saying that these marsh districts would be specially favourable to the propagation of cholera, as they have been found to be of diphtheria. Both cholera and diphtheria mount up from low lands to higher, and traverse considerable distances horizontally when favoured by soil-moisture and an excess of organic matter, even when the sewerage of a district is efficient.

MESMERISM AT OWENS COLLEGE.

IN the vague province of hysteria one frequently meets with conditions in which some rudiment of illness, possessing no necessary or usual mental influence, appears to usher in a train of nervous symptoms with whose causation it is credited in the absence of a better explanation. Persons thus situated, while possessing powers of reason little or not at all impaired, can be prompted, bidden, or persuaded to act in various ways, and obey with unusual facility. Similarly there are some weak persons sound enough in mind if only they had more of one, or had strengthened it by judgment rather than surrendered it to the impulses of mere sentimentalism, who may as easily be mastered by a shrewder intelligence. To one or other of these classes the cataleptic subjects of the so-called paralysis by suggestion which have lately occupied the attention of several French practitioners should properly be referred. Individuals afflicted with this supposed illness will lose the power of a limb or a side, will pass into a hypnotic state, or put on almost any conceivable aspect of nervous disease, and recover, at the mere suggestion of some other ordinarily healthy person. In all this we do not find anything new. We have not arrived at any fresh pathological basis. We are still in the region of disordered function; and there nothing appears but the temporary suspension or acquiescence of one will at the instance of another. There is we have said no necessary connexion with insanity. There is further no sign of morbid change in any tissue. The only influence at work, under whatever disguise of magnetism, mesmerism, or magic it may be shrouded, is that of fear or of persuasion by which a person with some assumption of superior knowledge is guiding and controlling the actions or convictions of another. The natural resistance of the latter has ceased to act, has we may say been tamed to play its part. But this has come about by his own agency. He has allowed himself to be over-awed, or to be outwitted by the logic of the supposed mesmerist, and is consequently either a fellow conjuror or a duped assistant. It is remarkable that persons possessing a fair degree of individuality do not make very suitable media. It is a more plastic, even a self-deceiving nature which can best discharge this function. We need not be surprised that commercial enterprise should find means of turning to profitable account the interest of speculative scientific men, and the popular credulity with regard to mesmeric puzzles. We do feel somewhat astonished, however, that the authorities of such an institution as Owens College should have gone to the extent of lending a hall, and so far permitting themselves to countenance the performances of an American expert in matters of this kind. The performer in the present instance appears to have treated the studious and curious of Manchester to an entertainment more coarse than convincing, in which persons previously known to him were made to eat, nay, to enjoy, or at all events to say that they enjoyed, tallow, copaiba, and other abominable uneatables. Some medical students were next operated on. These, however, consisting of comparatively fresh and unimpressible material did not respond satisfactorily to the stimuli of the new philosophy. Being men of some taste, moreover, they refused to partake of the dainties provided for them. Nor were other efforts of this peculiar art more successful. So the farce ended. "Professor" Kennedy has no doubt his supporters, and perhaps admirers. He may come to have imitators, as he has had predecessors. It is not for us, though we hold opposite views, to compel the judgment of any one, and we do not think that such a course, even if possible, would be required for the great majority of a people possessed in a fair measure of common sense. We might, however, have looked for a more considerate reserve among the responsible members of a teaching university.

FRESH PROVISIONS v. LIME-JUICE.

A CASE recently heard before Mr. Mansfield clearly shows that some modification of Clause 4 of the Merchant Shipping Act of 1867, relative to the issue of lime-juice to the crews of vessels trading beyond certain limits, requires revision. The case is briefly as follows:—A vessel had left England and gone through Port Said, no lime-juice having been served out during the voyage; the crew, however, had been supplied with fresh provisions, potatoes, and other vegetables, and on coming home lemons had also been given to the crew. The Board of Trade admitted that the vessel had been well provided with fresh provisions, but as the Act laid down that lime-juice must be served out, it was impossible to accept fresh provisions, potatoes, and vegetables, even when supplemented with lemons, in place of the official lime-juice. Mr. Mansfield had to give judgment accordingly, but he expressed a decided opinion that fresh vegetables were better antiscorbutics than lime-juice; the great value of the latter being that for long voyages it keeps well, and takes but little room for its storage. The very great improvements that have taken place in steam navigation since the Act was passed has rendered the provisioning of ships with fresh meat and vegetables a matter of comparative ease. Not only is steaming more rapid, but the opening of the Suez Canal has greatly shortened the distance to India, China, and Australia, whilst the system of storage of fresh provisions in refrigerating chambers has been very largely adopted. No person in his senses would consider salt beef or pork, dried peas, and lemon juice, according to official rules, a more wholesome diet than a daily ration of unsalted meat, potatoes, and fresh vegetables. The Board of Trade excuse the serving out of lime-juice whilst a ship is in port if fresh food is given. Surely it would be in accordance with common sense if this permission were extended to ships when at sea, if it were shown to the satisfaction of the officials that an adequate supply of fresh vegetables, potatoes, and meat were served out daily to the crew. We

sincerely hope that the Board of Trade, instead of seeking to check by vexatious prosecutions the introduction of a rational and wholesome system of diet on board our mercantile marine, will give it all the aid and encouragement in their power by drawing up a dietary which may be used as an alternative to the present one for all ships in which it can be shown that fresh, not preserved, provisions can be served throughout the voyage.

DANCING AND DEPORTMENT.

WHEN lecturing on the 22nd inst., to the Birmingham Teachers' Association on "Mind and Muscle," Dr. Crichton Browne insisted on the importance of the timely training and discipline of all motor centres; so that advantage may be taken of the superior plasticity which characterises them during their period of growth. He pointed out that the industrial position of the country and the skill of our artisans might be endangered if, for the cultivation of book-learning, we postponed the training of the hand-centres till too late an age. And he made some interesting observations on the educational value of different kinds of muscle-work. As regards dancing, he said that if taught at the proper time—that is, very early in life—it "may discipline large groups of centres into harmonious action, enlarge the dominion of the will, abolish unseemly muscular tricks and antics, develop the sense of equilibrium, and impart grace and self-confidence. Every day," he continued, "we may detect in the conversation or carriage of persons we meet painful evidences of the neglect of dancing and deportment in the rearing of the young. I recollect having this brought very forcibly before me at a funeral, at which I was present in Scotland many years ago. It was the funeral of a very eminent Scotchman, was conducted after the Scotch fashion, and was attended by the *élite* of a Scotch university city, to the number of about two hundred. Those invited were received in a large and very long dining-room, by the deceased's relatives, who stood at the end of the room farthest away from the door of entrance. The blinds were drawn and silence was maintained. No names were announced, but as each man arrived he was ushered in by the undertaker and had to walk up the middle of the long room in full view of those who had already assembled, and give a sympathetic shake of the hand to the chief mourner. I was there early, and had an opportunity of watching the deportment of the guests as they made their public progress up the room and went through the sacramental hand-shaking, and the general impression I brought away with me, after seeing 200 men of light and leading go through this performance, was that dancing and deportment had been scandalously neglected in their bringing up. Awkwardness, slovenliness, grotesqueness, and meanness prevailed. Most of the guests when they found themselves inside the darkened chamber in the presence of a sombre, sepulchral, black-habited, hat-holding company, and realised what they had to go through, gave a little start as if detected in some crime. They then pulled themselves together, and crept, shambled, strutted, or frisked up the room between the two rows of grief-bowed but not unobservant funeralists, and having offered their salutations, hurried to one side and plunged into the crowd as soon as possible. Most curious was it to note the facial contortions practised to express a sense of woe and sympathy. Gross exaggeration was the commonest fault, and in some instances attempts to avoid this ended in an aspect of callous indifference or positive enjoyment. One picturesque professor, who has been accused of being too theatrical in his style, made the best *entrée*. He was self-possessed, dignified, and grave, and showed in look and manner that he mourned as a man should mourn for a lost friend. Next to him in point of merit as regards demeanour came the doctors, who, either from experience in the business or habitual professional solemnity, acquitted themselves well. After them I should have placed the artists, who through various shades of eccentricity exhibited a certain fitness of bearing; and worst of all were the scholars and pure scientists, who in their boyish bashfulness, nervous excitement, absent-mindedness, vanity, and barefaced effrontery were positively painful to behold. I came to the conclusion that day that my most distinguished countrymen are sadly deficient in muscle-culture, and that they should have been taught dancing in their youth—not Scotch reels, though these are very well in their way, but graceful and grace-giving dances."

THE SANITARY CONDITION OF WINDSOR.

AT the last meeting of the Windsor Town Council, the Health and Drainage Committee brought up a report stating that the necessity of a visitation from house to house throughout the borough had been considered by them, and they begged to recommend that such visitation be not made. The report was of course adopted, Sir J. Devereux, on whose motion the subject had been referred to the Committee, expressing his regret at the conclusion at which the Committee had arrived. We can hardly believe that the Town Council have determined to leave Windsor in the condition which was fully described by our Commissioner, but at the present moment there appears to be no indication of a desire to remedy the serious sanitary defects which have lately been brought to their knowledge. We would therefore again commend to the notice of the inhabitants those statutory provisions by which the sanitary authority can be put in motion when they neglect themselves to take the initiative.

OVERCOAT "COLDS."

THIS is the season most appropriate for a little serious reflection on the subject of overcoats. Nothing seems more simple than to adapt clothing to the weather by the addition of an overcoat, light or heavy as the occasion requires. It must not, however, be forgotten that just in proportion as the garment superimposed upon the ordinary clothes is effective in producing a sense of warmth, it acts by arresting the evaporation of warm vapour from the body. This warm vapour continues to rise through the ordinary clothing, but it is prevented from escaping, and the clothes are saturated with it. The general effect is well enough while the overcoat is kept on, but the moment it is removed evaporation recommences, and the body is placed in a "cooler" constructed on the principle adopted when a damp cloth is wrapped round a butter-dish, the vapour passing off, abstracting the heat, and leaving the contents of the cooler refrigerated. The point to make clear is, that the overcoat, let it be fashioned and ventilated as it may, does not prevent the underclothing from being saturated with moisture, but actually tends to make the moisture accumulate therein. This is proved by the sense of genial warmth felt while the overcoat is worn, and the evidences of perspiration easily perceived, under the arms and at the sides of the chest particularly, immediately after the overcoat has been removed. Moreover, we take off the coat when we enter a warm house, and precisely at the moment when muscular activity is suspended. A very little consideration will suffice to convince the common-sense thinker that nothing can well be worse managed than this process, both as regards its nature and the time and conditions of its operation. It is opposed to all the canons of health to allow the clothing to become saturated with perspiration and then to take off the external covering and suffer rapid cooling by evaporation; while if it were designed to do this at the worst possible time, probably none worse could be found than when muscular exercise has been discontinued.

The suggestion we have to offer is, that it would be far better policy to wear only one coat at a time, and to make whatever change may be necessary by removing a thin coat and replacing it by a thicker one when going out of doors, and the reverse when coming in. If, instead of wearing overcoats, people would wear coats of different thicknesses, according to the weather and conditions generally, they would avoid the danger of cooling by evaporation; the garments saturated with moisture would be removed, and dry off the body instead of on it. We believe no inconsiderable proportion of the "colds," attacks of lumbago, and even more formidable results of what are popularly called "chills," may be traced to the practice of wearing overcoats which arrest the ordinary process of evaporation, cause the clothing within to be saturated with accumulated perspiration, and are then removed, when rapid cooling takes place. The avoidance of this peril is to be attained by such change of coats as the conditions require.

FRANCESCO REDI.

IN his opening address, when President of the British Association, Professor Huxley surprised and delighted his audience with a finely appreciative sketch of this many-sided Tuscan, who, in his harmonious combination of literature, science, and æsthetics, was not only a model of the Court physician, but an exemplar of the "complete professional mind." Francesco Redi, while recalling medicine from a superstitious reliance on drugs to rational observation and induction, and approving himself so successful in treatment as to win the confidence of one grand duke after another, found time to make substantial contributions to comparative anatomy and natural history, and, as the author of "Bacchus in Tuscany," to wean contemporary Italian poetry from the conventional Spanish and French schools, and to purify his native language by sympathetic study of the chaster masters and by lexicography hardly inferior to that of his modern parallel Littré. Not an hour too soon, his compatriots, as if in rebuke of the mediocrity now so sadly characteristic of all things Italian, have just unveiled a monument to him in his native Arezzo, on occasion of the meeting of the Società Geologica Italiana in that town. The ceremony was highly impressive, and, though not illustrated with oratory of such force and finish as Professor Huxley's, evoked encouraging proofs of the deep sense shared by modern Italy of her inferiority to her mediæval self, and of the necessity she feels of a more masculine ideal in creative art and inductive research. The inscription, if not equal to some recent specimens of epigraphy in which Italian, like its parent Latin, condenses into force and crystallises into epigram, is sufficiently descriptive:—

FRANCESCO REDI
DEL BELLO STILE MAESTRO
POETA E LETTERATO SOMMO
CHE INTESE CON GLORIA
ALLA MEDICINA
E ALLE NATURALI ESPERIENZE
LA PATRIA
IL 13 SETTEMBRE 1885.

(To Francesco Redi, master of beautiful style, consummate poet and scholar, who, with glorious result, applied himself to the healing art and to natural experiment, his fatherland raised this monument on the 13th September, 1885.) At the first sitting of the Congress, immediately after the ceremony, Professor Scalzi of Rome took leave to renew his vindication of another Aretine worthy, Andrea Cesalpino, as the virtual discoverer of the circulation of the blood. In reply to Professors George Johnson and G. M. Humphry, he contrasted what men knew of the subject as Cesalpino found it with what they knew of it as he left it, and contended that in all essentials the "circulation" (the very word Cesalpino used) was experimentally demonstrated by him in his productions at Pisa, many years before William Harvey compiled his great treatise "De Motu Cordis." Dr. Scalzi had small difficulty in convincing an audience predisposed to meet him more than half way; but he must not expect to find their verdict endorsed by Englishmen, who, while prompt to render all just honour to Cesalpino as to Redi, await the publication of more valid testimony than he has yet been able to adduce.

RIVER POLLUTION.

THE National Society to Secure Effective Legislation against River Pollution has issued a report, in which they recount the steps which were taken to ensure the passing of Mr. Hastings' Bill during last session. With the main objects of this Society we cordially sympathise; the condition of the River Lea is itself a striking instance of the need for further legislation. The Bill as it appeared last session will, however, require considerable amendment, the adoption of certain standards of purity being open to much objection. The great fault of the Rivers Pollution Act of 1876 is that only permissive, and not obligatory, powers were conferred upon sanitary authorities, and as a result the Act has become almost a dead letter. Every year adds to the necessity for further action, the growth of population leading to the more serious fouling of watercourses. We trust the Society will be actively supported in their efforts during the coming session.

CHOREA AND TYPHOID FEVER.

THAT typhoid fever may abolish chorea is a well known fact. It does not seem to be so generally known that typhoid fever may originate chorea. Rilliet and Barthez have observed the development of chorea in a patient who was ataxic after typhoid fever. Benedict has also described a tremor of the head with unilateral convulsions. Nothnagel and Ebstein have witnessed choreiform disorders consecutive to pythogenic fever. But if chorea may be regarded as of rare occurrence during convalescence from typhoid fever, it is extremely rare during the actual course of typhoid fever Peiper (*Deutsch. Med. Wochen.*, No. 8, 1885) has recorded the case of a girl, aged sixteen, who was attacked with typhoid fever, from the first commencement of which involuntary movements of a foot were observed. On the ninth day, however, chorea was fully established, apparently as the result of a violent emotion caused by the receipt of the news that her mother had just died from enteric fever. From the description, it would appear that the chorea was general and severe. It lasted altogether ten days, and during the whole time considerable pyrexia was present. The fever ran a normal course, and convalescence ensued naturally. There was a systolic murmur of obscure character, which finally disappeared. The dependence of the chorea on the cardiac lesion was regarded as out of the question.

OVERWORK ON RAILWAYS.

No question can possibly exist as to the fact that railway servants are systematically overworked, to the peril of life and limb by so-called "accidents," resulting from carelessness, which is not the outcome of negligence but of the natural failure of powers from excessive and unduly prolonged exertion. We must confess our inability to understand how it happens that courts of justice do not recognise this fact and make it felt by their verdicts. If principals, instead of agents, were dealt with in vindication of the law against manslaughter, there would be an end of overwork on railways. Mr. Sutherst, the President of the Short Hours' League, in a letter to a contemporary, adduces abundant illustration of the way in which railway companies overtax the strength of

their servants, in violation of the most ordinary principles of humanity and to the danger of their passengers. It is needless to recapitulate evidence thus recorded. Everybody who has given the matter a serious thought and instituted a few of the most ordinary inquiries, must know that the practice of keeping engine-drivers and guards at work for ten, twelve, or in some cases twenty hours at a stretch, is common. The only possible object in thus overworking the servants of railway companies is to keep down expenses and increase dividends. It is for the Legislature to say whether this mischievous abuse of authority is to be permitted. Unfortunately, the so-called interests of railway companies are so largely represented in both Houses of Parliament that there is scant hope of justice being done.

THE DIFFICULTIES OF MEDICAL PRACTICE.

AN incident which would appear almost too absurd for belief if it were not for one interested person both serious and too true, may be quoted as showing the conditions of medical practice in Spain during the late epidemic. A woman suffering from consumption was attended once by a practitioner who prescribed for her. She died of her disease the following morning. Her daughter, however, would not allow that death was due to natural causes, but insisted that the medicine taken had poisoned her mother. The fears of the neighbours were excited, a mob gathered, and for a time the doctor's life was in danger. Even after satisfactory proof had been given before a judge that the remedy prescribed was a harmless refrigerant, and could safely be taken at a draught by the dispensing chemist with impunity, and, further, when death from consumption had been certified by a post-mortem examination, the people were not satisfied, but clamoured against the whole body of medical practitioners, and threatened them in their angry infatuation. Dr. Espinosa, who prescribed the mixture in question, has thus most undeservedly lost the confidence of many of his patients, and has been recommended by the authorities to prescribe only pills, in deference to a popular preference for drugs administered in this form. The Spanish incident we have detailed is something of an allegory. It illustrates by a particular example a state of credulity allied with mistrust which prevails among the ignorant, rich and poor, of every people with regard to the circumstances, the aims and even the moral intention of medical treatment. The credulity of such persons in not a few cases leads them into experiments upon themselves by no means happy in their results. Their groundless disbelief in the powers or motives of a profession whose constant endeavour is to promote their welfare, restrains them from showing that frank sincerity towards a skilled adviser which is all essential to their relief or cure. It follows also as a consequence of the same disordered feeling that the purest personal character is at times not safe from ill-natured calumnies of the grossest kind, and we do not hesitate to state our opinion that such cases do not always receive at the hands of local juries that fair consideration which they demand. What, then, should be the attitude of a practitioner in the exercise of his professional functions? We do not purpose to answer this question by recommending the adoption of any set manner or method. There are, nevertheless, certain principles which must be honoured in the daily life of all who would exercise a guiding influence upon their fellow-men, and it should be the aim of the physician to accommodate himself to these, while at the same time he does not suffer them to fetter his legitimate individuality. As a workman of the healing art he should keep himself while on his round of practice to his work. Tattle should not be listened to, or if forced upon him should simply be dropped from his mind as refuse. A member of an honest calling, he can afford to be fearless in stating his professional views, though not rudely heedless of how he does so, straightforward while shrewdly able to keep his own counsel, not blind to consequences, but always ready to place duty higher than mere temporary expediency. He will find it best to have no secrets with his patients, but to be as open with them as possible. In great measure the possessor of special knowledge, the less mystery there is about himself the better. If to these simple necessaries of conduct we add the quality of kindness founded on a sense of justice to one's neighbour, or, in short, courtesy, and the tact which commands the temper (often sorely tried) by sparing words, we have sketched in fair proportions that figure of a finer commonsense which is the essence of medical propriety. Conformity to this or any example will not, it is true, convince the ignorant and prejudiced, but it will be found to constitute the practitioner's safest course among the deceitful shallows of their insinuations or the rougher waters of their stormy denunciations.

OPISTHOPORIA.

THIS rare disease (*ὀπισθε*, backwards; *πορεία*, a going) has just been described more fully than heretofore by Dr. Mazzotti in his "Storia Clinica e Necroscopica di un Uomo che presentò il Fenomeno di andare all' indietro" (Clinical and Necroscopic History of a Man who presented the phenomenon of going backwards). The man in question was sixty-six years of age, and for a year before he entered hospital was subject to giddiness. He was a hard drinker, and became so, as he said, because he "suffered from scorbutus." He got rid of his scorbutic affection, but shortly afterwards he found that instead of going forwards when he tried to walk he went backwards. On putting his feet to the ground he swayed somewhat from side to side, stretched his legs apart like one afraid of losing his balance and falling, and when exhorted to walk he moved, with great effort, stepping backwards. He was for five months in hospital, during which time he was often made to test his walking powers, but always with the result above stated. He ultimately died of ulcerous colitis, and on post-mortem examination the intracranial nerve-centres presented no other appearances than a slight degree of leptomeningitis and a highly atheromatous condition of the arteries at the base. Dr. Mazzotti's conclusion is that the phenomena presented by his patient during life were due to a simple disturbance of the endocerebral circle (*un semplice disturbo di circolo endocerebrale*), and he agrees with Nothnagel, that "to the clinical phenomenon of going backwards in walking no value can be attached as diagnostic of a localised cerebral lesion."

SEPTEMBER FATIGUE.

THE Poet Laureate describes in graceful lines how "in the spring a young man's fancy lightly turns to thoughts of love;" and we venture to think that as autumn comes round the sportsman's fancy not less strongly turns to thoughts of heath and stubble. For of all human emotions, after the tender passion, none exercise a stronger influence over its votaries than the fascination of sport. In this lies its danger. The judge doffs his gown; the counsel throws aside his wig; the lawyer vacates his desk; the man of business forsakes his counting-house; most men, in fact, who have the means and opportunity and possess the Englishman's innate love of sport, look forward to their September outing with dog and gun as their great recreation of the year. With age the love rather increases than diminishes. The octogenarian shot prides himself on his brace of birds on the first of September, and this feat becomes a pleasing record in his family. But the mischief from fatigue in

shooting is greatest to the sexagenarian. That the body does not repair itself after fatigue at this age so readily as heretofore is often first brought home to a man in his September outing. All exceptional physical exertion should be prepared for by some system of training. The "shot," whose previous occupation has been sedentary, should subject himself to daily exercise for at least a month before shooting begins. There should be a daily increase of exercise so that the fatigue of the first of September may be followed the next morning by a sense of freshness and elasticity of limb. As years advance this becomes more and more essential, if the full measure of good to health is to be derived from the national love of field sports.

THE BIOLOGICAL EXAMINATION OF WATER.

THE chemical analysis of water for sanitary purposes is necessarily imperfect. When we have estimated the suspended matter, the total solids, the chlorine, the ammonia (free and albuminoid), the nitrates and nitrites, the phosphates, the organic carbon and nitrogen, the oxygen absorbed by organic matter, the dissolved oxygen and the hardness, we have pretty nearly exhausted our resources. We can, it is true, give our opinion, which is probably correct, as to the nature of the water, especially if a detailed account of the source has been sent with the sample. But of the biological condition of the water chemical analysis tells us nothing; and this it is exceedingly important to learn. Until lately no system of biological examination had been framed; but the labours of Dr. Koch in the Reichs Gesundheits Amt, Berlin, we have now a systematic course which ought at once to be adopted in England. It has already been adopted by Dr. Percy Frankland in his recent study of filtering and precipitating agents, and we have now, thanks to Professor Warden of the Calcutta Medical College, a complete account of it in a paper published in recent numbers of the *Chemical News*, and since reprinted in pamphlet form. The system consists essentially in mixing a known volume of water with "sterilised liquid meat peptone gelatin," counting, after a definite period, the colonies of micro-organisms which develop, observing the extent to which they liquefy the gelatin, and, if necessary, cultivating them in various ways. The utmost possible care is, of course, necessary in these operations, and special apparatus is required. The paper gives full directions and illustrative drawings, and the importance of the system is well illustrated by Professor Warden, when he reminds us that a drop of a cholera stool added to a litre of pure sterilised water could not be detected by chemical analysis, whereas the bacteriological examination would "with absolute certainty demonstrate the presence of a comma-shaped micro-organism, while subsequent cultivation experiments would indicate whether the organism was the cholera bacillus or not."

PROPOSED ISOLATION ARRANGEMENTS AT ALNWICK.

THE Local Board of Alnwick are unanimous as to the necessity of providing an infectious hospital, and the decision arrived at has been come to after an experience which will probably prevent any change of mind in the matter, for it is stated that during their last epidemic the town lost some £3000 by the refusal of people to come into the place for months after the disease had ceased. But some members of the Board are evidently not aware of the conditions which tend to success in such a matter. Thus, by some an iron building was advocated in the place of a more substantial structure, and one ground alleged for the smaller expense which would thus be incurred was the circumstance that, even on application to a magistrate, the authority had failed to get a small-pox patient removed to the workhouse hospital, and that hence it was possible that people would refuse to enter a hospital provided by the authority. The argument used really tells in the opposite direction. It is when sanitary authorities provide proper and attractive hospitals that success in the prevention of disease attends their efforts; but when they cannot isolate patients without pauperising them, or without exposing them to excessive alternations of temperature in cheap iron buildings, then nothing but failure can be anticipated; and the official report on the "Use and Influence of Infectious Hospitals" ought alone to have convinced authorities on this point. From the extent of population in Alnwick, we should think that the ten-bedded isolation pavilion, the plans of which were recently issued by the Local Government Board and commented on by us, together with a small administrative cottage, would be the best sort of permanent provision to be made. But we very much doubt if the proposed half acre will suffice as a site. Quite irrespective of the fact that the Local Government Board now require that there shall be an unoccupied zone of not less than forty feet between the wards, dead-house, laundry, &c., and the enclosure fence of the site, it is of great advantage to have land already available for any temporary extensions that may be necessary. One member of the Board advocated a movable hospital which could be "put on rollers" and erected in an hour. Such schemes have often been advocated, but we never heard of an instance in which they have been carried out. An infectious hospital needs a site, a kitchen, nurses' accommodation, water-supply, means of drainage, &c., and how all this is to be supplied either in an hour or in one or more days we hardly know. The initial difficulty will be the site, for most people wish an infectious hospital everywhere except in their neighbourhood, and in the case of a movable hospital this grave difficulty would have to be faced each time it was used. There can be no doubt that movable infectious hospitals for the purposes of sanitary authorities are a myth.

A CHOLERA SHIP OFF LIVERPOOL.

OUR Liverpool correspondent sends us the following. "The steamship *Cartagena*, from Marseilles and Carthagena, cargo iron-ore, arrived shortly before midnight on Sept. 18th. Pursuant to order of the Local Government Board, she was detained in the Mersey by the Customs, sickness from cholera having occurred on board during the voyage. She was visited by the assistant medical officer, Dr. Hope, and Port-Inspector Brown, and the following facts were ascertained. She left Marseilles on Aug. 8th, after fourteen days' stay, during which water and provisions were taken on board. The captain's log says: 'During our stay in Marseilles the horrid stench of the water in the harbour caused nearly the whole of our crew to be sick, with violent vomiting and purging lasting for some hours, then it would pass off for a time, and with some it would return ..... Nearly the whole crew, officers, and engineers suffered more or less from the same complaint—sickness, looseness, purging, &c.' After leaving Marseilles the sickness increased. On Aug. 9th a seaman who had hitherto escaped died after an illness of eleven hours. On Aug. 12th a fireman died after two days' illness. The vessel put back to Marseilles, and two of her crew were taken to the hospital there on Aug. 14th. She again left Marseilles on Aug. 26th for Carthagena. Diarrhœa continued to affect some of the crew. She left Carthagena on Sept. 11th. Several hands continued to suffer occasionally from diarrhœa and abdominal pains; and on arrival in the Mersey several of the crew were debilitated in consequence of having suffered from it. Examination revealed no other sickness. Fresh water and provisions were sent on board;

the vessel was thoroughly disinfected and cleansed—crew's quarters, holds, ballast tanks, and bilges; bedding and clothing were fumigated; and the ship's water carbolised and pumped out at ebb tide. The vessel was visited each day; and on Sept. 21st two of the crew who remained much debilitated, and whose abdominal symptoms remained troublesome, were removed to the Port Sanitary Hospital. The *Cartagena* was subsequently released."

THE ENGLISH LUNACY COMMISSIONERS AS CENSORS.

OUR attention has been called to the conspicuous difference which exists between the manner in which the English Commissioners in Lunacy criticise the work of the asylum superintendents and the method of the Scottish and other Boards. This is very noticeable. We do not think it is to be charged upon the Commissioners individually, but upon the constitution and policy of the Board as a whole. The English Commission is entirely out of harmony with the medical profession. Its chief method of showing energy is fault-finding. Its public acts are almost invariably vexatious persecutions of legally qualified men for purely technical irregularities. It is a Board which has no claim to respect or gratitude, so far as the public and the profession are concerned. The good done by the Commission is the simple result of its existence and the publicity of its reports.

HEMIATROPHY OF THE TONGUE.

PROFESSOR HIRT of Breslau reports in the *Berliner Klinische Wochenschrift* an interesting case of hemiatrophy of the tongue in an old woman. On Jan. 1st she was seized suddenly with an apoplectiform attack, being unconscious for a moment, and incapable of speech for half an hour. After that she spoke, but indistinctly, faintly, and hoarsely. She experienced difficulty in swallowing liquids, and salivation occurred. A month later it was noticed that the tongue was always protruded to the right side, and that the left half of the tongue was thicker than the right half. This, however, did not interfere with mastication, and there was no pain. In April, when she was seen by the professor, this inequality of thickness, in the two sides of the tongue was very marked. The whole organ was tremulous, the right half especially so. The surface of the right half was wrinkled and furrowed, soft, and spongy, while the left half was firm to the touch. Sensation and taste were normal on both sides, but reaction of degeneration was found. The movements were rapid and normal. There was paralysis of the right recurrent nerve, the inferior vocal cord on that side bending upwards during phonation. There was no loss of sensation in the fifth, nor of motion, in the oculo-motor tract. There was certainly no tabes. Though the case at first simulated progressive bulbar paralysis, there being dysphagia, salivation, and disturbance of deglutition, yet the hemiatrophy of the non-paralysed tongue led to the formation of a definite diagnosis—bulbar hæmorrhage, with embolic softening of the nuclei of the right hypoglossus and spinal accessory.

TREATMENT OF WHOOPING-COUGH.

IN a pamphlet recently published Dr. Moncorvo has advocated the employment of cocaine in pertussis. The hydrochlorate of cocaine is used as an adjunct to the treatment of the malady by resorcin, for which Dr. Moncorvo stands sponsor. The upper parts of the larynx are first to be mopped with the 1 per cent. solution of resorcin, and then a 10 per cent. solution of the hydrochlorate of cocaine is applied. The cocaine should be used frequently.

EXPERIMENTAL RESEARCHES ON CHOLERA.

THE results that have been obtained by MM. Chantemesse and Rummo were communicated to the meeting of the Académie de Médecine held on Sept. 15th (*L'Union Médicale*, Sept. 17th). Two specimens were examined and experimented with. One was brought from Spain by Rummo, and the other was sent direct by M. Ferrán. When the former liquid was injected under the skin of the thigh of guinea-pigs, in doses of one cubic centimetre, no local disturbance was observed; the syringe was sterilised and the skin washed with a solution of corrosive sublimate. If, however, four to eight cubic centimetres were injected, an eschar formed around the bulla due to distension of the cellular tissue. The lesion was healed at the end of eight days. There were no other symptoms whatever and the health of the animal was perfectly restored. After five or six days had been allowed to elapse all the animals were again submitted to the injection into the stomach of pure cultivations of the comma bacillus. The animals had previously undergone the preparation by treatment with soda and tincture of opium according to the directions given by Koch. All the animals, whether vaccinated with Rummo's fluid or not, succumbed without exception in five to twenty-four hours with diarrhœa and epithelial desquamation of the intestines. In the liquid stools, as well as in the contents of the bowel, large quantities of comma bacilli were detected. The cultivation and microscopical examination of the liquid obtained by Rummo from Ferrán gave no certain indication of the existence of comma bacilli, though there were numerous micrococci and rectilinear rods. The specimen sent by M. Ferrán contained comma bacilli, and gave all the test characters according to Koch's teachings. The authors conclude that M. Ferrán's vaccine is not an invariable composition.

LORD SHAFTESBURY.

WE are enabled to give the following particulars of the illness of Lord Shaftesbury. It appears that for many months his Lordship had been suffering from a troublesome form of diarrhœa, and went to Folkestone towards the end of July, hoping that he should be invigorated and enabled to throw off that which had troubled him for so long a period. Unfortunately, about a month ago, when the diarrhœa appeared to be steadily diminishing, he took a chill when out in an unusually cold east wind, and a slight pleuro-pneumonia set in in the left side. This has continued to creep about the upper part of the lung ever since, sometimes getting a little better but never thoroughly well. For the last week he has shown evident signs of increasing weakness, which, in view of his Lordship's great age, naturally causes his medical attendant, Dr. Bowles, considerable anxiety.

EXTRAORDINARY VERDICT.

A FEW days since an inquest was held by Mr. Collier, deputy coroner for East Middlesex, respecting the death of Mary Ann Jackson, aged forty. It appears that the woman had been an inmate of the workhouse infirmary for about six weeks, at the end of which time she discharged herself, although, according to the evidence of the resident medical officer and two of the nurses, she was not in a fit condition to do so. Judging from the sworn testimony, there is some doubt as to what occurred afterwards. The husband stated that he applied to Dr. Beatty, the out-door medical officer of the parish of St. George's, for relief, and was advised by him to send his wife again into the infirmary; the doctor, however, denied that such application had been made to him. It was also alleged that Mr. Barnes, the relieving officer, was guilty of dereliction of duty in not affording assistance to the woman

in her destitute condition. In answer to this, Mr. Barnes said that it was not in his power to do anything for the husband of the deceased, because his wife had discharged herself. The medical man who made the post-mortem examination deposed that, in his opinion, death was due to "effusion of blood on the heart and chest, accelerated by privation and want." The jury returned a verdict in accordance with the doctor's evidence, and found in addition that Dr. Beatty and Mr. Barnes were answerable for the death, inasmuch as they had shown gross neglect. The coroner whilst recording this verdict expressed himself dissatisfied with it. As the case is *sub judice*, we refrain from comment for the present.

THE INTERNATIONAL MEDICAL CONGRESS.

WE learn from the Philadelphia *Medical News* that the new committee of the Congress held its meeting, as announced, in New York on the 3rd inst. A new executive committee, consisting of the president, treasurer, secretary general, and the chairmen of sections, was appointed. The rule of membership was amended so as to give representation to the general societies representing special departments of medicine. The committee then proceeded to fill up vacancies caused by resignations of office. Dr. N. S. Davis of Chicago, editor of the journal of the American Medical Association, was elected secretary general; Dr. Henry T. Bowditch was elected a vice-president of the Congress; Dr. W. H. Pancoast, president of Section of Anatomy; Dr. E. O. Shakespeare, president of Section of Pathology; Dr. A. B. Arnold, president of Section of Medicine. The committee adjourned to meet in St. Louis just previous to the next annual meeting of the American Medical Association.

ST. THOMAS'S HOSPITAL.

DURING the present vacation considerable alterations and improvements have been made in the medical school attached to this hospital, chiefly in the anatomical department. The capacity of the large lecture theatre has been increased, and improvement effected in the arrangement of the seats; further accommodation also has been provided in the dissecting-room by taking in some of the class-rooms attached, additional rooms being built for demonstrators and lecturers. Other changes have also been made and will be completed by Oct. 1st. These alterations have been rendered necessary by the increase in the number of students entering at this medical school.

ACTION OF ANTISEPTICS ON ANIMALS.

THE research on experimental therapeutics by MM. Mairet, Pilatte, and Combemale have been extended to iodine and nitrate of silver. The total quantity of iodine injected has varied between two grammes and a fifth of a gramme, so that the proportion per kilogramme of body weight has been between ·03 and ·14 gramme. The limit of tolerance was observed to be ·045 per kilogramme of body weight. Above this proportion death ensues in from one to seven days. Below this proportion the animal lived, but if the quantity were above ·03 gramme per kilogramme of body weight, convalescence was very slow; it may be delayed for eight days, during which period pleural friction may be heard at the base of the lung behind and along the vertebral groove. An aqueous solution of nitrate of silver injected into the veins was used in doses varying from ·036 to ·074 gramme, and therefore corresponding to ·002 and ·004 gramme per kilogramme of body weight. In the weaker doses the morbid symptoms disappear after twenty-four to forty-eight hours of weakness accompanied by disturbance of respiration. With the stronger dose death is constant and rapid.

THE EXISTENCE OF DISTINCT OLFACTORY CELLS.

FROM some experiments with various staining fluids on the Schneiderian membrane, made by M. A. Buchalov in the physical laboratory of the University of Kasan, and communicated by him to a St. Petersburg medical journal, it appears that it is possible to distinguish between the epithelial and the olfactory cells. A preliminary step in the same direction was made by Löwe in 1878, by means of bichromate of potassium, which causes the nuclei of the epithelial cells to be only with difficulty coloured by carmine. The writer states that when the fresh membrane is hardened in a bichloride of mercury solution, the nuclei of the epithelial cells take up the mercury, while those of the olfactory cells remain clear. Again, when an alcoholic solution of methyl green is added to the ordinary safranin colouring solution in such quantity as to produce a distinctly violet tint, and a section of the membrane which has been hardened in alcohol is immersed in it for a few minutes and then washed with water, a beautiful microscopic preparation is the result, the whole of the superficial nuclei belonging to the epithelial cells being stained a bright blue, while those of the deeper olfactory cells are a reddish-violet. If this preparation is washed in ether, the distinction between the two sets of nuclei is obliterated. The olfactory bulb also contains two distinct sets of cells—large ones, with numerous processes, and small spherical cells nearly filled by nucleus. When a section which has been hardened in alcohol is stained with the violet solution above mentioned the large multipolar cells and their nuclei become red, the round cells remaining unstained, but with bluish-violet nuclei. A similar colouring can be obtained by means of a mixture of rosaniline and methyl violet.

THE MEDICAL SOCIETIES.

THE following are the days on which the various medical Societies resume work:—

The Obstetrical Society	Wednesday, Oct.	7th
The Ophthalmological Society ...	Thursday, „	8th
The Clinical Society	Friday, „	9th
The Pathological Society	Tuesday, „	20th
The Assoc. of Med. Officers of Health	Friday, „	23rd
The Medical Society	Monday, „	26th
The Royal Medical and Chir. Society	Tuesday, „	27th
The Epidemiological Society	Wednesday, Nov.	4th

SANITATION AT ANTWERP.

AT a time when so many persons have been attracted to Antwerp by the Universal Exhibition, and the excellence of the improved service *vid* Harwich, a few words concerning the sanitary condition of that town may not be out of place. Antwerp, like Paris, has sewers and cesspools. The latter are of course grave inconveniences, but Antwerp seems better protected than Paris against the dangers of sewer gas. The authorities do maintain that all pipes leading from house to sewer should be trapped; and, though this precaution is sometimes neglected, it can be enforced. Thus far, at least, Antwerp is in advance of many French towns. Formerly the moat outside the walls was the main sewer of Antwerp. Then, as the town grew, the moat was covered over and converted into a sewer, the district beyond draining into the next and further moat. History traces five different boundaries to Antwerp, and these are now the five main sewers which form semicircles from the river round the town and back to the river. Some of these sewers are of enormous proportions, measuring seven metres in width; but they form excellent reservoirs, where the water at high tide is detained and then suddenly discharged when the water is low. Thus the sewers of Antwerp receive twice

a day a flush of 40,000 cubic metres of water. There are few towns so favoured. In spite, however, of this great advantage, and of the proverbial cleanliness of the Flemish population, the death-rate is high. The average for the ten years from 1871 to 1881 equals 25·5 per 1000 of the population. But, perhaps, in these figures sufficient allowance is not made for the rapid increase of the population.

PERFORATING ULCER IN DIABETES.

PERFORATING ulcers of the foot have become associated with the protean tabes dorsalis. So far as we are aware, no observer has hitherto claimed any special association of perforating ulcer with diabetes. M. Laffon has put on record a case in which these two symptoms went together.[1] The patient was a man, aged sixty-one, who about the age of thirty-nine experienced, as the result of a shock, what he called a fever in his left foot accompanied by violent lightning pains. About a year later the big toe of the left foot became swollen, and the first and fourth toes gradually ulcerated. Later the other toes were attacked in the same fashion. Anæsthesia was present only for short distance around the ulcers. The right leg was attacked at times with painful cramps. The urine contained a large proportion of glucose. The disease of the toes was said to have some likeness to ainhum. If there were other symptoms of tabes dorsalis or of diabetes as a disease, no mention is made of them in Laffon's account.

ST. MARY'S HOSPITAL MEDICAL COLLEGE.

WE are glad to learn that a new residential college has just been opened in connexion with St. Mary's Hospital. The building, which is a spacious one and situate in Westbourne-terrace, is in close proximity to the Medical School. Rooms are being set apart both for study and amusement, including a small histological laboratory. The students will be under the immediate supervision of the warden, who is a member of the hospital staff, and will receive systematic help in their work. This is a step in the right direction, and will be highly appreciated by parents and guardians, who will feel sure that their sons or wards are having all the comforts of home, and, what is more important still, that watchfulness for want of which many a promising youth yields to the temptations of the world.

ASEPTOL AS AN ANTISEPTIC.

M. TERRANT believes that aseptol is a more useful and safer antiseptic than carbolic acid. It is more soluble in water, is but slightly caustic, and hardly at all toxic. The urine of an adult to which 1 part in 100 of aseptol had been added was exposed to the air, sun, and every variation of temperature for fifty days without undergoing decomposition. Other experiments were made with fragments of meat, river water, beer, and the contents of latrines, with corresponding results.

A BREEDING GROUND FOR EPIDEMICS.

IN our last issue we called attention to the dangers arising from the creation of a large dust-heap on the banks of the Thames eastward of Wandsworth Bridge-road. A similar accumulation was at the last meeting of the Paddington Vestry the subject of an animated discussion. The site of the latter deposit is on the south side of the Regent's Canal basin, within sixty yards of St. Mary's Hospital, and within eighty yards of the windows of the accident ward. It is unnecessary to point out the extreme risk of erysipelas to which the inmates are exposed by their proximity to a mass of decomposing organic matter. The Vestry have wisely taken the advice of their medical officer of health, and have by a large majority ordered proceedings to be taken to enforce the removal of the dust-heap and of the dust collector's business from the south side of the canal. As we have already stated, such accumulations should not be permitted in the neighbourhood of inhabited dwellings, and London should insist upon some other method of dealing with this matter than one which renders such a course necessary.

[1] Journal de Médecine de Bordeaux, Sept. 13th.

THE CURE OF INEBRIETY IN ENGLAND AND AMERICA.

ON Saturday last, Dr. Joseph Parrish, President of the American Association for the Cure of Inebriates, was entertained at lunch by fellow-workers in England at the Dalrymple Home for Inebriates at Rickmansworth. Dr. Norman Kerr, President of the Society for the Study and Cure of Inebriety in England, presided, spoke on the subject, to which he gives unstinted time and purpose. Dr. Parrish pointed out that the increasing recognition of drunkenness as a physical disease facilitated the public legislation necessary for its special treatment. He objected to all legal restrictions on entering homes. He congratulated the temperance party in England on the absence of sectarianism in their ranks.

ACTION OF CHLORATE OF POTASH ON THE BLOOD.

THE statement of Marchand that chlorate of potash converts the hæmoglobin of the blood into meta-hæmoglobin, thus interfering with its action in respiration, has lately been confirmed by Von Mering, who finds that the change depends on the quantity of chloric acid present, not in any degree on the base.

RECTAL ETHERISATION FOR CHOLERA.

AFTER discussion amongst the medical staff of the Granada Hospital, it was decided to try the effect of etherisation per rectum for cholera in the hope of destroying the vitality of the cholera bacilli. Fifteen patients were subjected to this plan of treatment. Two of these were convalescent within twenty-four hours. One of the patients died, and twelve progressed favourably.

HYPNOTIC ACTION OF TERTIARY ALCOHOLS.

H. THIERFELDER and J. VON MERING find that tertiary butyl alcohol and tertiary amyl alcohol produce a narcotic effect on rabbits. Three cubic centimetres of the latter substance produce in a few minutes a deep sleep, lasting from twelve to twenty-four hours. No morbid effects are observed when the animal wakes. Ten to twenty cubic centimetres kill medium-sized dogs. The compounds are found in the urine in combination with glycuronic acid.

INFANTILE CEREBRAL PNEUMONIA.

THE determination of the locality of an acute inflammation is frequently a matter of great difficulty in infants. Much disease may exist in almost any situation without giving rise to any obvious clinical signs. On the other hand, it sometimes happens that very little disease produces marked symptoms, even the gravest of all symptoms—death. M. Huchard has put on record (*Revue Mensuelle des Maladies de l'Enfance*, 1885) the case of a child, aged sixteen months, in whom violent convulsions, cervical opisthotonos, and coma were present without any meningeal affection, but with croupous consolidation of the upper lobe of the right lung. The greater tendency for marked cerebral symptoms to appear in cases of pneumonia of the upper lobe has been insisted upon by Heinze and others.

INTRAMUSCULAR MERCURIAL INJECTIONS.

M. LUTON avers that metallic mercury is more rapidly absorbed from muscular than from connective tissue. It is possible that a kind of emulsion of the liquid metal is effected which renders the mercury easy to be absorbed, or else that the mercury gains access to the circulation by a sort of diapedesis. One gramme is the dose recommended, and this quantity would yield about one and three-quarters of a gramme of bichloride of mercury. That the metal is absorbed is made perfectly clear by the fact that the gums of some of the individuals treated became "spongy" and sore. It is difficult to perceive what advantages this method has over others in common use.

THE Clinical Society of the New York Post-Graduate Medical School and Hospital has issued the first number of a periodical entitled the *Quarterly Bulletin*. It contains several interesting original papers, in addition to reports of the Proceedings of the Society. Among the former is one on Observations on Phthisis and Pneumonia in their relation to Syphilis, by Dr. William H. Porter, illustrated by a rather highly-coloured chromo of a lung presenting excavation in its upper half, "syphilitic pneumonia and miliary gummata" in the lower half. The symptoms of syphilitic lung disease are held to be peculiar and diagnostic, the best treatment being by the biniodide of mercury, iodide of ammonia, and the iodide of potassium. Dr. W. O. Moore writes upon the Physiological and Therapeutic Effects of the Coca Leaf and its Alkaloids; Dr. Buechler on the Bacilli of Syphilis; Dr. Van Schaick advocates Ox-gall in Typhoid Fever; and Dr. McNutt gives an interesting account of Intra-cranial Hæmorrhage in Children.

SIR CHARLES AITCHISON'S idea of a Punjaub Medical College, with full power to grant medical degrees, seems in a fair way to be realised. It is expected that local boards and municipalities will support the scheme, and the Punjaub Government, in spite of financial pressure, is determined that it shall not fall through for want of State aid.

THE *London Gazette* of Sept. 18th announces that the Queen has been pleased to appoint Douglas Argyll Robertson, Esq., M.D., F.R.C.S. Edin., to be Surgeon Oculist in Ordinary to Her Majesty for Scotland, in the room of William Walker, Esq., deceased.

TREATMENT OF CHOLERA BY HYPODERMOCLYSIS AND ENTEROCLYSIS.

No. I.

THE cholera epidemic at Naples last year was so formidable, and the medical school of that city is so deservedly noted, that a communication from one of its leading professors on the treatment of cholera cannot fail to command attention. Such is the Memoir published by Professor Arnaldo Cantani in *Il Morgagni* of June and July last, "On the Results of the Treatment of Cholera by Hypodermoclysis and Enteroclysis in the Naples Epidemic of 1884.[1] Those terms are employed to designate copious subcutaneous and intestinal warm injections—the former with alkaline salts, the latter with tannic acid solutions. The hypodermic solution usually employed is prepared with four grammes of chloride of sodium and three grammes of simple carbonate of soda, to one litre of water, at a temperature of 39° to 40° C. The sides of the abdomen are the preferable positions for the operation; the lateral regions of the neck are to be avoided, as practically certain to be fatal by œdema of the glottis. The quantity of liquid to be injected at one time should not, as a rule, exceed 1500 cubic centimetres, when the patient is in the algid asphyxiated stage (*stadio algido asfittico*). When the patient is not very dry, smaller injections are preferable, from 800 to 1000 cubic centimetres, each time. When the patient is in the typhoid state, each injection should consist of from 500 to 600 cubic centimetres.[2] The subcutaneous injection requires to be repeated in most cases until the pulse reappears, or increases in strength, the respiration improves, cyanosis lessens, and urine is secreted. In the typhoid state the hypodermic injections require to be still more frequently repeated. The more advanced the symptoms of algidism and paralysis, the higher should be the temperature of the liquid injected (39° to 40° C.=104° F.). A few of Professor Cantani's clinical reports are here abstracted:[3]—

"1. Miss B——, aged sixteen, after two days' indisposition, was seized with profuse choleraic diarrhœa in the night (Sept. 2nd to 3rd). Losses continued abundant by stool and vomit, with cramps all day; the patient was almost lifeless on the evening of the 3rd, with cadaveric face, glassy eyes, bluish and icy hands; cyanosis, suppression of urine from the previous night, failure of the pulse, profound apathy, and the rigidity of the whole body threatened death by choleraic asphyxia from one moment to another. Drs. Perli, Amoroso, and Adinolfi having pronounced the case most desperate, Dr. Perli proposed warm saline alkaline hypodermoclysis as a last remedy. In fifteen minutes the patient absorbed one litre of fluid, and almost immediately respiration became easier and fuller, the pulse returned, and the expression became more animated; the patient felt a general improvement, and in a few hours passed urine. During the night improvement became more marked; and after six hours febrile reaction was observed; it continued moderate, the temperature not exceeding 38° C. The fever lasted six days, during which the patient subsisted entirely on broths and eggs. On the tenth day recovery was complete."

"13. C. B——, aged seventy-three, having suffered, for some days from diarrhœa, and lately from vomiting and cramp, was found by Professor Marini in a state of advanced cyanosis; no urine had been voided for two days; prostration was very great; radial pulse absent; voice almost inaudible. One litre of the usual solution was injected under the skin by Dr. Marini, with the happiest result. The liquid was rapidly absorbed, the radial pulse returned; in the course of a few hours the skin became warm, the urinary secretion was restored, voice and bodily strength regained. The patient had three days of marked febrile reaction, and was able to get up on the fifth day."

"16. Also a case of Asiatic cholera of a very severe type in a woman aged sixty. Within sixteen hours from the commencement of the treatment three subcutaneous injections of the warm saline solution were practised, to the aggregate amount of 4300 cubic centimetres—upwards of one gallon. The patient had a chequered convalescence, but recovered. The treatment in this case included injections of ether."

As an example of thirty-four fatal cases recorded by Professor Cantani the following may be quoted:—

"Signor F. J——, aged thirty-five, corpulent, was violently attacked with cholera on the morning of Sept. 7th. The intestinal discharges were very abundant and frequent, but the patient did not vomit. In the evening he was pulseless, voided no urine, and was slightly cyanotic. Dr. Perli practised an injection of three litres and a half (nearly seven pints) of the saline solution, which was rapidly and wholly absorbed, only causing the patient to feel giddy. In every other respect the patient improved rapidly; the pulse returned, cyanosis disappeared, and he felt well; but, after a few hours, symptoms of collapse supervened, and proved fatal, in spite of the warm bath and subcutaneous injections of sulphuric ether. Dr. Perli attributed death to the fatty condition of the heart."

Professor Cantani tabulates 226 cases in which this treatment was adopted, with 155 recoveries and 71 deaths, a result which may be thus expressed in percentages:—Recoveries, 68·584 per cent.; deaths, 31·416 per cent. It is

[1] Risultati della Cura del Cholera colla Ipodermoclisi ed Enteroclisi nell' Epidemia di Napoli del 1884, per il Prof. Arnaldo Cantani. Il Morgagni A. xxvii., Parte i., No. 6 e 7. Giugno e Luglio, 1885, pp. 313-383.

[2] 1000 cubic centimetres are 1 litre=1 pint 15 oz. 2 drs. 11 m., or 15432·348 grain measures.

[3] To facilitate reference, the number of Professor Cantani's cases is retained, although only a few of them are abstracted.

only just to state that, in the majority of cases, the copious subcutaneous injections were only resorted to when the patient was in a very advanced, often in a seemingly hopeless, stage of the disease.

Of the 226 cases above referred to, 101 were treated by Professor Efisio Marini, whose patients are thus classified:

"Cases of more or less serious choleraic diarrhœa and vomiting, not in the algid stage	49
Cases of incipient algidism	24
" advanced algidism	15
" very grave asphyxia (cured)...	4
" very grave asphyxia (died)	9
Total	101"

For scientific accuracy and practical utility, Professor Cantani subtracts from the preceding list the 49 cases which, not having attained the algid stage, may not have required, and might have recovered without, his method. That calculation leaves 52 very serious cases of cholera treated by Marini by hypodermoclysis, with the result of 43 recoveries and 9 deaths.

THE PROGRESS OF CHOLERA IN SOUTHERN EUROPE.

THE diminution in the cholera mortality in Spain is still maintained, the average daily number of deaths for each of the past three weeks having been some 800, 500, and 300 respectively. In Marseilles the cholera death record has for some days ceased, and at Toulon there are only occasional fatal attacks; so that we may hope that the epidemic, in so far as France is concerned, is at an end.

In Italy matters are otherwise. A few isolated cholera deaths occurred at Gaeta and Trivio towards the end of August, and then Sicily, the authorities and population of which are amongst the most ignorant that can be found in Europe as to measures of public health, determined on a system of stringent quarantine. But in countries necessarily having communications with each other, cholera has no respect for quarantine measures, and, as in the cases of France, Italy, Spain, and Algeria last year, so in the case of Sicily this year, the disease passed the imaginary line drawn round the island, and showed itself at Palermo. Unfortunately, countries and places trusting to quarantine do but little else in the way of disease prevention, and the result has been that Palermo was found to be essentially adapted to the development of the infection introduced. The disease rapidly spread, and within a week as many as from 120 to 170 deaths from cholera have been daily reported. Fifteen other Italian provinces are also on the list of infected ones, but in Parma only has any material mortality occurred. Except in Palermo, the tendency to rapid diffusion has not been manifested, and it is to be hoped that the conditions of season and otherwise will prevent any recurrence of the serious epidemic of 1884.

In so far as national measures of cholera prevention are concerned, the Italian Government commenced this year a rational system, based very much on the lines of the English procedure. But the ignorance of the Sicilian population has, for the moment, put an end to their good intentions, and the Government had to give way to the excited demands of a people who wander about armed with rifles, &c., to kill the imaginary persons who distribute cholera infection in powders and otherwise. Such action naturally prevents the authorities from adopting tardy remedies with disinfectants and so forth; and it has, at last, reached such a point that the Government, probably repenting that they in the first instance gave way to immoderate demands, have determined that the populations of the island shall comply with the general cholera regulations for the whole kingdom, and they have now sent troops to enforce this compliance, and to put down any attempts to interfere with the necessary intercommunication of the inhabitants of different localities. The attitude assumed by the Sicilians, and especially by those in the province of Palermo, in the face of a grave emergency, tends to bring discredit upon the nation to which they belong; and the Italian Government will do well to arrest, with a strong hand, any further development of the ignorant infatuation which has been exhibited.

STATISTICS OF FERRAN'S INOCULATIONS.

DR. FERRAN has issued a pamphlet giving the cholera statistics of several towns in which the epidemic decreased in a very marked degree from the time when a considerable proportion of the inhabitants were inoculated. He lays stress on the fact that the prophylactic virtue of inoculation is dormant until the fifth day.

In Alberique, the population of which was 4996, 1188 persons were inoculated between May 17th and June 12th, of whom, from May 17th to Aug. 6th, 11 were attacked and 2 died; while of the uninoculated population 220 took the disease and 91 died during the same period.

In Alcira, the population of which was 16,000, 2220 were inoculated once and 8830 more than once. Here no specific dates are given, but a table showing that 404 non-inoculated persons were attacked, 206 of whom died, and that 44 of the singly inoculated were seized, 15 dying; while out of the large number of the reinoculated population only 55 cases occurred, with 9 deaths.

In Benifayó, which had a population of 3615, 2717 were inoculated once or oftener. From June 21st to July 27th 283 cases occurred amongst the non-inoculated population, with 186 deaths, while amongst those once inoculated there were but 23 cases with 6 deaths, 4 of the 6 fatal cases having already suffered from premonitory diarrhœa at the time of inoculation. Of the persons who had been more than once inoculated not one was even attacked.

Catarroja had a population of 5521. From June 18th to June 30th 219 persons were attacked, with 88 deaths. The local medical men then begged Dr. Ferrán to send them some of his inoculation fluid, with which they inoculated 1319 persons. From July 1st to August 5th there occurred amongst the non-inoculated 311 cases, with 222 deaths; amongst the inoculated before the fifth day 46 cases, with 22 deaths; after the fifth day 13 cases, with 3 deaths. From the table given the height of the epidemic was apparently from June 28th, on which day 40 new cases occurred, to July 5th, when 53 persons were attacked. It then deceased, and on the 13th there were only 4 cases, and after the 23rd none at all.

In Cheste, with a population of 5227, 175 cases, 65 of which were fatal, having occurred in June, Dr. Ferrán was requested to come and inoculate the people, which he did to the number of 3136 between June 30th and July 3rd. From July 1st to August 8th, 76 of the non-inoculated population were attacked, with 35 deaths, while only 13 of the inoculated were attacked, with 7 deaths, all these 13 occurring before the fifth day.

In Chiva, with 4386 inhabitants, 1308 were inoculated. From July 1st to August 10th, 140 of the non-inoculated were attacked, with 54 deaths, and 11 of the inoculated, with 5 deaths, 2 of these 5 occurring before the fifth day. In this town the inoculations were prohibited after a time, so that reinoculation could not be practised.

In Masanasa the population on July 6th consisted of 2559 persons, 1973 of whom had been inoculated. From that date to August 7th there were amongst the non-inoculated 35 cases with 24 deaths, while amongst the much larger number of inoculated persons only 11 were attacked, 6 of whom died.

CIRCULAR HOSPITAL WARDS.[1]

BY H. SAXON SNELL, F.R.I.B.A.

THE proposition for constructing hospital sick wards upon what is known as the "circular system" was first made in this country during the latter part of 1878, about the same time that the foundation-stone was being laid in Belgium of a hospital intended to be built upon this principle. The design for this building, the Antwerp Civil Hospital, having received the approval of the Communal Administration of the town, was referred to the consideration of the Council of Public Hygiene at Brussels, but this body strongly condemned the erection of circular wards upon grounds which, now the building is erected, would appear to have been

[1] Read, Sept. 24th, 1885, at the Congress of the Sanitary Institute of Great Britain, held at Leicester.

correct. Nevertheless the work was proceeded with, and the building is now opened, and may be inspected by those interested in the question. No other continental nation has, to my knowledge, considered this new system worthy of imitation; but in England many similar hospitals have been erected, and it is, I believe, in contemplation to erect others. There is something very fascinating about the conception of a circular ward, and superficial consideration of the question would lead to a belief in the soundness of the arguments advanced in favour of the system; indeed, I was myself disposed, before critically examining the matter, to allow that its adoption might possibly be productive of some, if not all, the benefits promised by its advocates. This allusion was, however, dispelled when lately I had occasion to study the question in all its aspects for the purposes of a report to a public body prepared to erect this class of wards upon my recommendation, and I propose now to show the reasons that led me to the conclusion that parallelogram-shaped sick wards are in every respect much more economical, both in first cost and in management, and that no advantage is to be attained by the increased outlay consequent upon the erection of wards of circular shape.

My present remarks will be confined to a consideration of the erection of wards for general hospitals, and I do not propose in this paper to deal with the question in its application to fever or other wards for special cases. Nevertheless, I am equally convinced that the circular system as now advocated is wrong in any kind of hospital building, whatever be its special use or locality; but to deal with the question in its application to other than ordinary hospitals would involve considerations which the time at my disposal on this occasion will not allow of being entered into. It will be well to first consider what are the conditions necessary to be observed in the planning and construction of general hospital wards. First, as to the number of patients. I have the authority of Miss Nightingale and of many hospital superintendents for stating it to be essential that besides the ordinary nurses and attendants every ward should have the constant presence of one head nurse in the day time and of one nurse at night time, and that these head and night nurses could each properly overlook forty patients as a maximum; but taking into consideration all the essentials for proper discipline and facility of administration, the number of patients in any one ward should not exceed thirty-two or be less than twenty; also, that in all cases one or at most two separation wards, each for the accommodation of one, or at most two, patients, should be attached to the large ward, but not so as to communicate with it directly. All the wards should, however, adjoin the rooms occupied by the nurse having charge of the patients contained in them. Except in the case of separation wards, wards of small size are decidedly objectionable, because they are (says Miss Nightingale), "unfavourable to discipline, inasmuch as a small number, when placed together in the same ward, more readily associate together for any breach of discipline than a larger number."[2] And it is also pointed out by her that one head nurse, or one night nurse, could not so efficiently superintend and overlook a number of small wards as one large one. Each large sick ward, whether it contains ten or thirty patients, must have attached to it at least two w.c.'s and a slop-sink, separated by cross ventilated lobbies. A bath-room should also adjoin each large ward. It is therefore clear that the fewer the patients in each ward the larger will be the total number of nurses required in the establishment, and the greater will be the multiplicity of nurses' rooms, waterclosets, slop-sinks, bathrooms, and other sanitary offices.

Suppose a hospital to be designed for the reception of 576 patients, 540 of whom are to be placed in eighteen parallelogram-shaped wards containing thirty each, and the remaining thirty-six in smaller and adjoining separation wards. If the buildings are three stories in height there would be six pavilions; but if, as I shall show, twenty-two patients only can be placed in the large wards because they are of circular shape, then eight pavilions would be required instead of six, and twenty-four wards instead of eighteen. In both cases these wards and pavilions are assumed to be of the same size.

It has been shown that the services of one head and one night nurse must be provided for each large ward, and it therefore follows that the adoption of this circular plan would involve the additional cost of twelve nurses for the six extra wards. The two extra pavilions containing these six wards would also necessitate the additional services of one scrubber and one porter for carrying coals and meals and attending the fires, furnaces, &c., and the salaries, uniforms, and maintenance of these fourteen additional officers cannot be put at less on the average than £50 a year each, or a total of £700. The additional cost of fuel for the warming and hot water supply to these two extra pavilions may be put at a minimum sum of £200 per annum, and the outlay for soap, soda, &c., for cleaning and the periodical white-washing, painting, and repair, cannot be put at a less sum than £100 per annum. Therefore the total additional establishment charges consequent upon the adoption of the circular system would be £1000, as follows, viz.:—

12 extra nurses 1 „ scrubber 1 „ porter	at £50 per annum each...	£700	0	0
Extra fuel...		200	0	0
Soap, soda, &c., and repairs		100	0	0
Total		£1000	0	0

This sum, capitalised at three per cent. (thirty-three years' purchase) would amount to £33,000, and this represents the additional cost of maintaining the 576 patients supposed to be housed in wards designed upon the circular system. The additional cost per 1000 patients would be £57,392, and this cannot be considered a large estimate, seeing that Miss Nightingale in her work on hospitals shows that where nine patients only are contained in a ward, as against thirty-two patients in a ward, the additional capitalised outlay for nursing only would be £196,775.

Now, as to the relative cost of erecting the buildings—a question involving primarily a consideration of the requisite sizes for the wards—there must be much diversity of opinion amongst medical men and other authorities upon this point, if we are to judge from the dimensions of recently constructed hospitals. Captain Douglas Galton considers that between 1200 and 1300 cubic feet of air space per bed is all-sufficient. Miss Florence Nightingale asks for from 1200 to 1500 ft. Dr. Parkes, speaking of hospitals generally, says that the space should be from 1500 to 2000 ft. (the latter quantity referring no doubt to fever and the former to general hospitals). Dr. De Chaumont, in his report upon the Norfolk and Norwich hospital, shows upon mathematical bases that where good ventilation exists no advantage is gained by making the air space of large wards greater than 1200 ft. per patient. The report of the committee appointed to consider the cubic space of metropolitan workhouses and infirmaries states that the cubic space to be allotted to ordinary sick patients in large wards "should not be less than 850 ft."; but it is stipulated that no space above the height of 12 ft. from the floor-line shall be included in the calculation. This committee consisted of the following eminent authorities—viz., Drs. Thomas Watson (chairman), Henry W. Acland, Francis Sibson, W. O. Markham, and John Randall, Capt. Douglas Galton, Messrs. Uredale Corbett (Local Government Board inspector), Timothy Holmes, F.R.C.S., and Charles Hawkins, F.R.C.S. In my own practice I have erected four large parish infirmaries, holding in the aggregate upwards of 2500 ordinary sick patients, with less than 950 cubic feet of space to each, and the medical officers of these establishments have not found it necessary at any time to order the removal of any of the beds (as was contemplated), should one or more extraordinarily severe cases at any time be developed, and seem to call for increased space. The Moabit Hospital at Berlin gives a space of only 864 cubic feet for each ordinary patient; but in this building one-fourth of the cases treated are stated to be of an acutely infectious character,[3] and we may presume that a larger space would be allotted for this class of patients. Yet the death-rate at this establishment, I am assured by eminent men who have examined the returns, is not above the average of other German hospitals. The proper size of hospital wards is not, however, to be determined by mere considerations of the greater or less quantity of air-space requisite for the well-being of a patient; for Dr. De Chaumont, in his report before referred to, has clearly shown that where by good ventilation a proper change of atmosphere is constantly effected, it matters not within reasonable limits what is the size of the ward. The question must be decided principally by consideration of floor space, and here

[2] Notes on Hospitals, by Florence Nightingale, 1863.

[3] Hospital Construction and Management, London, 1883.

again examples and opinions are sadly diverse. The Moabit Hospital, and the four parish infirmaries previously alluded to, contain about 70 superficial feet of floor space per ordinary patient, and this is the quantity recommended by the before-mentioned committee of experts. Captain Douglas Galton asks for from 90 to 112 feet, Miss Nightingale from 100 to 104 feet, and Dr. Parkes and Dr. De Chaumont from 100 to 120 feet. In each case these authorities seem to determine their maximum and minimum by the question of whether or no accommodation is to be provided around the bed for students—i.e., whether the hospital is or is not to be designed for a medical school. The disposition of the superficial space determined upon, whatever it may be, involves two important questions—viz., the width of the ward, and the distance apart of the beds. Twenty-four feet is conceded to be for all purposes of administration an all-sufficient width for any hospital ward, and inasmuch as it is of the highest importance that each bed should have the largest possible space surrounding it, this width would, I apprehend, never be exceeded, were it not for the desirability of reducing the length of a ward to within a limit not exceeding 120 ft. In parish infirmaries the prescribed distance apart of the beds—i.e., the bed space—is 6 ft.; but 7 ft. 6 in. or 8 ft. is the width more generally adopted, and hence it comes about that the breadth of the wards is necessarily increased in some buildings to as much as 30 feet. And here I would point out that the advocates of the circular ward system invariably and wrongly use the term "wall space" as synonymous with "bed space," or the distance apart from centre to centre of the beds; and they often improperly calculate this distance, apart of the beds, by dividing the total length of the circumference of the circle by the number of beds, and so arrive at a deceptive result. Take, for example, the description given in the *Builder* of May 9th last, of "A projected Military Hospital," designed upon the circular system. It is there stated that the wards are each to be 66 ft. internal diameter, and that they are to hold twenty-six patients; "thus," says the description, "each patient will have a wall space of 8 ft." As a matter of fact, if this military hospital is ever erected, and twenty-six patients crowded into its wards, each will have a lineal wall space at the heads of their beds of 7 ft. 4 in., but the corresponding distance at the bottom of the beds will be but 6 ft. 3 in.; that is to say (the beds being 3 ft. wide) the distance apart of them will be 3 ft. 3 in. only. And therefore, if it is required to know what really will be the space given per bed in this proposed hospital, as compared with the quadrangular plan of ward, we must calculate the average distances apart as given above of the beds at the heads and at the feet, and then, instead of the delusive 8 ft. of wall space, we shall find that the actual bed space per patient in this proposed hospital would only be 6 ft. 9½ in.

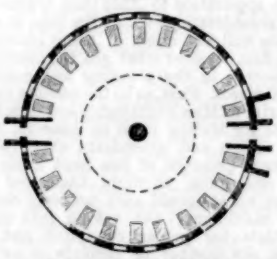
The above results would be arrived at by deducting 6 ft. 6 in. in width for each of the entrance lobbies, and then planning out the feet of the beds at an equal distance apart, and radiating them towards the centre of the circle.

Then, with regard to the height of hospital wards: it is only Professor De Chaumont who expresses any decided opinion upon this point, and the conclusion he arrived at is, that 12 ft., or at most 13 ft., is all-sufficient. He has since been confirmed by the results of experiments made by two eminent American physicians, Drs. Cowles and Wood,[4] who proved to their satisfaction that no benefit arises from making wards higher than 12 ft. It is also no doubt upon these conclusions that the recommendations of the cubic space committee before referred to were based. Most other authorities regard the question of height as quite subsidiary to that of floor space, as decided by considering the width of the ward and the distance apart from centre to centre of the beds.

I have been particular to cite the opinions of these great authorities as to the requisite dimensions of ordinary wards, because I am about to show that it is practically impossible to design a circular hospital ward, within the limits they have laid down, without causing a useless multiplication of wards, ward offices, nurses, and domestics, resulting in an enormous and wasteful outlay, first in the erection of the buildings, and for all time in the annual establishment charges; and my argument would therefore admit of contention if it could be shown that in the illustration I am about to give I exceeded these limits, for it will be seen hereafter that the smaller we take the units of space the greater will be the cost of the circular as compared with the parallelogram-shaped ward; and I therefore propose to take for illustration a ward of dimensions which shall approach, as nearly as possible, the maximum quantities asked for by the before-mentioned experts. A parallelogram-shaped ward (see Fig. 2), containing thirty beds, and being 28 ft. wide, 120 ft. long, and 14 ft. high, will contain 1568 cubic feet and 112 ft. of floor area per patient, whilst the bed space will be 8 lineal feet per patient. A circular ward (see Fig. 1) of equal superficial floor space would be 65 ft. 6 in. in diameter, and if it is required (as for proper comparison it must be) to keep the beds the same distance apart as in the parallelogram-shaped ward, this space would not contain so many even as twenty-two beds. For if we consider the feet of the beds to be 7 ft. distant from the outer wall (6 ft. 6 in. for the length of a bed and 6 in. space between it and the wall), and the width of the two lobbies as 13 ft., we find that if there are twenty-two beds, the lateral distance from centre to centre of the feet of each is 6 ft. 9 in., and the corresponding distance between the heads 8 ft. 8 in., thus giving an average distance of 7 ft. 8 in., only as against the 8 ft. space of the parallelogram-shaped ward. The result is that by the adoption of this circular plan we should have a ward containing less bed space and in round numbers respectively 41 superficial and 571 cubic feet per bed more than we started by admitting was necessary for the healthy condition of the patients. The dotted line upon the plan (Fig. 2) encloses the centre space thus wasted in each ward, amounting respectively to 896 superficial and 12,553 cubic feet.

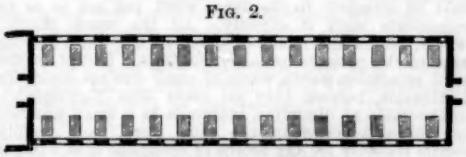
Plans of a Circular- and a Parallelogram-shaped Hospital Ward of Equal Area.

FIG. 1.



CIRCULAR-SHAPED WARD.
65 ft. 6 in. diameter; 206 ft. circumference; 7 ft. 8 in. average distance from centre to centre of beds. Contains 22 beds.

FIG. 2.



PARALLELOGRAM-SHAPED WARD.
120 ft. long; 28 ft. wide; 8 ft. from centre to centre of beds. Contains 30 beds.

Various ingenious suggestions have been made for the disposal of part of this space. One proposes to erect a staircase which, according to his plan, would occupy 250 superficial feet out of the 896, and at the Antwerp Hospital a still less quantity is enclosed to form a room (ostensibly, but never, I believe, in reality) for the use of a nurse. But besides the practical inutility of adopting these expedients, it will be seen that any such obstruction would only augment the difficulties of cross ventilation already created by the necessity of having the windows between 60 ft. and 70 ft. apart.

What, then, is to be done with this superfluous space? It has to be built, to be kept clean, to be ventilated, to be heated, but worst of all it has to be paid for; and at what cost I will now consider. The two additional pavilions previously shown to be necessary would cost, including heating, lifts, and fittings, £26,800, and the outlay for the additional accommodation of twelve nurses, including furniture and accessories, would amount to about £700, or together to £27,500. It will be observed

[4] Report of State Board of Health of Massachusetts, 1879.

that I have not taken into account the fact that the six remaining wards being built upon the circular system must of necessity be of more costly construction than if they were built upon the parallelogram principle. This sum of £27,500 represents the additional cost for 576 beds, and is at the rate of £47,743 per 1000 patients. Adding to this the capitalised cost of nursing these 1000 patients, previously shown to amount to £57,392, we find that if the circular system is to come into vogue, we must be prepared for indulgence in the luxury (if it is one) at the rate of £105,135 for every 1000 patients.

Should it suggest itself to anyone to inquire how a circular would compare with a parallelogram-shaped ward if both were designed to contain thirty beds, an average distance of 8 ft. apart, it would be found that the circular ward must be 87 ft. 9 in. diameter, and consequently the waste or unnecessary space in the centre of it would amount to no less than 2705 superficial feet. Moreover, it would be evident that the height of such a ward must be raised considerably if any sunlight at all is to approach the centre of it, and supposing this additional height to be, say 3 ft., the quantity of waste or unnecessary space in one ward alone would amount to 64,180 cubic feet. But this is not all, for it would follow that the adjoining offices, separation wards, nurses' room, staircase, &c., must also be raised. It will hardly be necessary, I think, to trouble you with the figures which would show the additional cost of this plan to be even greater than has been proved to result from a comparison of two wards of equal area, but with fewer beds in the one of circular shape. Neither need I point out to you how much all the other difficulties of ventilation, lighting, heating, and want of cheerfulness would be enhanced. Advocates of the system, however, say, "We have nothing to do with the cost; what we desire is to erect that description of building, whatever it may be, which best adapts itself to the cure of the patients to be contained in it," and within reasonable limits this view of the question is no doubt a right one. But I have searched in vain for any substantial arguments showing that from this point of view the circular is any improvement upon the parallelogram shape of ward, and I have little doubt that no such arguments could exist unless it can be shown that in contravention of nature's laws air would as freely pass through a room from one side to another when the windows are 60 ft. or 70 ft. apart, as it would if those windows were from 24 ft. to 30 ft. apart. It would also have to be demonstrated that, in defiance of all mathematical rules, when the sun was shining or the wind blowing against the straight wall of a parallelogram-shaped ward, less air and sun would penetrate through its window openings than would penetrate an *equal* number of window openings of the same size contained in wall of a circular ward. And then, having proved this anomaly, it would be necessary to define the process by which as large a quantity of air and sun could be brought into the circular ward through its twenty-two windows as could be brought in through the thirty-four windows of the parallelogram-shaped ward. This being made evident, the contention must be upheld that a ward having the distance of its parts from the windows varying from 1 ft. to 33 ft., is as cheerful as one the parts of which vary similarly from 1 ft. to 14 ft. only. And it must be shown that this cheerfulness will not be diminished by the height of the circular ward being one-fifth only of its diameter as compared with the parallelogram-shaped ward, the height of which would be one-half its width. But supposing all these difficulties to be surmounted, it will only have been shown that in the points referred to the circular is as good as the parallelogram system, and then what is left to compensate for the £105,000 outlay before referred to? It cannot be contended that for the purposes of a medical school, where it is desirable the greatest space for students shall be given round and about the patient, that the constriction of the feet of the beds, consequent upon their radiation towards the centre of the circle, is an advantage. It cannot surely be argued that it is a desirable arrangement to place a nurse, as at the Antwerp Hospital, in the centre of a sick ward, breathing all day its more or less foul atmosphere, rather than that she should be assigned an adjoining room having a window through which she could overlook the patients. Neither can it be said that if this central space is occupied by a staircase, such staircase would not be better placed, as in the parallelogram system, away from the ward, and adjoining and giving direct access to the nurses' rooms, separation wards, and other offices, and so avoiding the necessity of all persons and things passing through and disturbing the occupants of the large ward. If, then, these deviations from past practice cannot be shown to be improvements, what is left for those who would still be admirers of the new system to put forward as a claim for its superiority over the old one? I cannot say; neither can I imagine.

THE SANITARY CONFERENCE.

THE proceedings in connexion with the National Sanitary Congress, under the auspices of the Sanitary Institute of Great Britain, began at Leicester on the 22nd inst. The mayor of the borough (Alderman Hart) having formally opened an excellent exhibition of sanitary and health appliances divided into five groups—viz., building material, construction, and machinery, water-supply and sewerage, heating, lighting, and ventilation, personal hygiene, foods and disinfectants, and miscellaneous articles of sanitary interest,—the inaugural address was delivered in the lecture-hall of the Town Museum by Professor De Chaumont, the president elect. After thanking the mayor and corporation for their invitation to Leicester, and the hospitable reception extended to the delegates to the Congress, Professor De Chaumont said they did not wish the Congress to be a mere meeting of experts in the various branches of hygiene, but to make it the occasion of bringing home the subject to the community at large, and of bringing the knowledge already acquired to the amelioration of existing evils, and for the prevention of others. The beneficial effects of sanitation were nowhere more evident than in the Army. Thirty years ago the soldiers at home died at the rate of 18 per 1000, whereas now the rate was only 6·28; so that instead of having a higher mortality than the filthiest and most poverty-stricken parts of crowded cities, the Army had now a mortality of 40 per cent. less than the most healthy districts in England and Wales. The result was that, calculating sickness and death, there was a saving in the home Army of two battalions per annum. The case was made even more startling when he stated that at the time he entered the Army there were dying of consumption alone more men in two years than now died from all causes whatsoever in three years. Equally valuable results had followed good sanitary measures in India and the West Indies, and, putting on one side some pestilential spots which were specially dangerous to human life, they might confidently say that there was hardly a spot on the globe where men might not be kept in health and vigour by proper attention to hygiene. The Sanitary Institute was already in close connexion with the Parkes Museum, and they hoped soon to be able to make the union permanent, so that really a great central institution might be formed, which should be a centre of instruction and sufficiently powerful to make its views and opinions heard and respected by the State and among the people. It was a remarkable fact that at present there was no official recognition of the competence, or the necessity for the competence, of any of the officers connected with sanitary work. The medical officer of health, the local surveyor, and the inspector of nuisances might each and all be appointed without showing any proof of sanitary knowledge, and were, indeed, sometimes appointed without the possession of it. He earnestly hoped that the time was not far distant when it would be compulsory on all sanitary officials to show undoubted proof of their competency for office before being entrusted with the health of the people and the expenditure of their money. The importance of a Health Department of the State was becoming more and more evident, and the success which has attended its labours up to the present time demonstrates the propriety of advancing its position to that of one of the great departments of Government. They had now in the office of the President of the Local Government Board a *quasi*-Minister of Health, but as sanitary knowledge progressed the position must be vastly increased in power and in importance. There could be no question that unity in administration would add greatly to the efficiency and materially diminish the expense of sanitary work. A premature death was reckoned as a loss of £100; and if it was the head of the house and the breadwinner, it was evidently much more. There were 750,000 deaths every year in the United King-

dom, about one-half of which were deaths of children or of persons in the unproductive periods of life, and of the remainder nearly one-third were distinctly preventable. Could those deaths be prevented they would save, he calculated, a sum of £25,000,000 per annum, or little short of the amount they paid yearly for the interest on the national debt. Having shown the reduction in the mortality in specific diseases by means of improved sanitation, Professor De Chaumont dealt with the question of cholera, and concluded by expressing the opinion that his hearers might look upon the progress of the disease with calmness, feeling assured that the chances of its spreading among us were but few. The importance of vaccination, in Professor De Chaumont's opinion one of the greatest boons ever conferred upon humanity, was also briefly alluded to.

Mr. T. T. Paget, M.P., moved a vote of thanks to Professor De Chaumont for his address, which was seconded by the Mayor and carried.

On the 23rd inst., at a meeting at the Temperance Hall, Dr. Henry Lankester presiding, Dr. Alfred Carpenter stated that he had been enabled to treat disease far more effectually, and with greater advantage to the patient, by eschewing alcohol than by admitting it into his prescriptions.

Professor De Chaumont said there was no question but that the drink traffic was of enormous disadvantage to this country, and his experience in the Army had confirmed him in the view that if they abolished drink altogether in the service they would be doing a great benefit. He was certain that nine-tenths of crime in the Army were due entirely to drink, but great improvement in the drinking habits of soldiers had taken place during recent years.

Several other delegates also spoke.

The section for Sanitary Science and Preventive Medicine afterwards met at the Museum Lecture-hall, when Dr. Arthur Ransome, president of the section, delivered an address, in which he advocated the establishment, in each town visited by the Institute, of a local sanitary association, which would carry on the work of the Sanitary Institute by means of permanent organisations.

Dr. E. W. Buck next read a very interesting paper on "Infantile Diarrhœa," the prevalence of which in Leicester in an epidemic form he attributed to waterlogged subsoil, which was rendered impure by decomposed organic matter, which gave vitality to a specific organism which caused the disease. The long discussion which followed occupied the remainder of the morning sitting.

At the afternoon session Surgeon-Major Pringle read a paper on "Vaccination *versus* Isolation as a Preventive against Outbreak of Small-pox," in which he gave some interesting details of how he stamped out small-pox in India by isolation. A lengthy and animated discussion followed.

Mr. Lewis Angel afterwards read a paper on "Impediments to Sanitary Progress."

At night the Mayor and Mayoress of Leicester entertained the delegates and the leading inhabitants of the district at a *conversazione* at the town Museum. The Mayor congratulated the town and the delegates upon the great success which had so far attended the Congress, and hoped it would result in great permanent advantage to the town and to the country generally.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Oldham Urban District.—With a population of 122,676 persons, the death-rate for 1884 was 24·5 per 1000, or 2·6 in excess of that prevailing during the previous year, the excess being almost entirely due to an epidemic of measles. Diarrhœa, however, also caused 149 deaths, or 62 in excess of the number in 1883—an experience which was common to the majority of the large towns, where this disease tends to become epidemic in the early autumn. Much of the diarrhœa in Oldham appears to have been due to the erroneous belief on the part of mothers that a little diarrhœa is beneficial, and thus a simple diarrhœa is neglected and passes into a persistent form. With regard to measles, a number of precautions were taken: school-teachers were directed to keep a watch over their scholars; convalescents were prohibited from attending school; each infected house and the schools were visited by inspectors, and schools, &c., were disinfected; the holidays, too, were prolonged. But Dr. Bryden Hill adds that, in spite of all this, no diminution of deaths took place. Then a temporary notification of measles, together with the offer of free admission to the Westhulme Hospital, was resorted to, and by this means a more effectual hold on the disease was obtained, and this although the hospital was not much utilised. Anyhow, the epidemic declined and soon subsided. The details given as to notification of infectious diseases—disinfection, isolation in hospital, analysis of food and drugs, and general inspection—show that a large amount of current work is steadily carried out. Advice is given in the report as to the ventilation of sewers. Dr. Hill advocates the utmost ventilation practicable; but he naturally objects to it in places where the effluvia easily make their way into dwellings. Untrapped gullies in confined back yards are especially, and very properly, objected to.

St. Asaph Rural District.—The death-rate for this district is set down as 18·8 per 1000, excluding the deaths of persons from without. This rate is admittedly larger than usual, but it is regarded as "still reasonable." If it were maintained, we could not share the opinion as to its being reasonable for such a purely rural district as the one under consideration. The increase was due mainly to zymotic disease, the principal fatal affection being diphtheria, which has for some years past shown an almost unexplained tendency to cling to some of the districts about North Wales. Fatal pneumonia also prevailed, and the history attaching to it seems to indicate that the disease assumed the infectious type; and Dr. Lloyd Roberts has recently issued a paper dealing with the epidemic. In St. Asaph an attempt has been made to establish trough-closets without an adequate water-supply, an attempt which could only fail. The result is that the closets are so dirty as to be almost unapproachable. No form of water-closet should be attempted unless it is provided with permanent means for flushing, and trough-closets are best cleansed by the automatic flush cistern, which acts with the greatest efficiency, and economises water at the same time.

Peterborough Urban and Rural Districts.—As regards the urban district, Dr. Paley reports a death-rate of 17·1 per 1000. Typhoid fever is still prevalent in the city in connexion with conditions of drainage and well-water, which should be dealt with under a proper system of prevention before actual disease breaks out. How the soil of a city like that on which Peterborough stands can be resorted to for water is inexplicable from a health point of view, and Dr. Paley's reports are sufficient to condemn the system. Peterborough is also behindhand in having no bye-law as to distance of piggeries from houses, and since the nuisance statutory clauses have to be resorted to in dealing with offensive cases, the city always runs the risk of having to await the actual arrival of the evil to be avoided before action can be taken. A good deal of current work is, however, in progress, and the city has provided a small-pox hospital, in which the rural authority also shares, with a good disinfecting apparatus. In the rural district the death-rate was 13·4 per 1000. The zymotic rate was 1·3, but more than half the so-called zymotic deaths were from diarrhœa. Except at Thorney, the old-fashioned privy-vault is in general use, and since it must almost invariably be associated with nuisance, it is to be hoped that Dr. Paley's advice as to the substitution for it of some other form of closet—such as the pail closet—will not pass unheeded.

Ulverstone Rural District.—The general death-rate of this district in 1884 was 14·9 per 1000, and the zymotic rate as low as 0·7. Each case of any of the infectious fevers is evidently carefully inquired into; and under the headings of the several villages a description is given of the action taken under such circumstances. At Cartmel there was an epidemic of diphtheria, and it has been in certain respects interlinked with previous enteric fever. This condition is the more discreditable because, as Dr. Thompson says, the matter is readily explained by the fact that water for domestic purposes has been obtained from shallow wells which receive sewage from ground impregnated for generations. Dr. Page, when health officer for this district, pointed this out to the authority; and it is to be hoped that a district which is sought after by tourists and others

will not acquire a bad name because the authority fails to deal with conditions tending to the production of disease, and of which they are fully aware. In other parts of the district sanitary works of sewerage and water-supply have been carried out, and this may be regarded as auguring well for other localities needing a similar remedy.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5567 births and 2923 deaths were registered during the week ending the 19th inst. The annual death-rate in these towns, which had declined in the preceding six weeks from 21·8 to 17·3 per 1000, further fell last week to 17·1. During the first eleven weeks of the current quarter the death-rate in these towns averaged 19·2 per 1000, against 21·7, the mean rate in the corresponding periods of the nine years 1876-84. The lowest rates in these towns last week were 11·4 in Huddersfield, 12·7 in Birmingham, 14·4 in Blackburn, and 14·6 in Bradford. The rates in the other towns ranged upwards to 22·1 in Newcastle-upon-Tyne, 23·7 in Bolton, 23·7 in Cardiff, and 28·6 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 584 and 478 in the preceding two weeks, further declined last week to 393; these included 183 from diarrhœa, 49 from scarlet fever, 46 from whooping-cough, 41 from "fever" (principally enteric), 36 from measles, 32 from diphtheria, and 6 from small-pox. These diseases caused the lowest death-rates in Halifax and Bradford, and the highest in Cardiff, Portsmouth, and Preston. The greatest mortality from scarlet fever last week was recorded in Wolverhampton, Leicester, and Preston; from measles in Liverpool; from "fever" in Norwich and Portsmouth; and from diarrhœa in Cardiff, Portsmouth, and Preston. The 32 deaths from diphtheria in the twenty-eight towns included 25 in London, 2 in Newcastle-upon-Tyne, and 2 in Cardiff. Small-pox caused 8 deaths belonging to London and its outer ring of suburban districts, and not one in any of the twenty-seven provincial towns. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had steadily declined in the fifteen preceding weeks from 1389 to 213, had further fallen to 195 on Saturday last; the admissions, which had been 47 and 32 in the preceding two weeks, rose to 47 last week. The deaths referred to diseases of the respiratory organs in London, which had been 159 and 175 in the previous two weeks, declined to 152 last week, and were 31 below the corrected weekly average. The causes of 81, or 2·8 per cent., of the deaths in the twenty-eight towns last week were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Wolverhampton, Leicester, and in three smaller towns. The largest proportions of uncertified deaths were registered in Birkenhead, Oldham, Blackburn, Hull, and Sunderland.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been equal to 20·0 and 17·2 per 1000 in the preceding three weeks, further declined to 16·6 in the week ending the 19th inst., and was 0·5 below the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 12·7 and 13·3 in Greenock and Perth, to 17·6 in Paisley and 19·0 in Glasgow. The 404 deaths in the eight towns included 28 which were referred to diarrhœa, 9 from scarlet fever, 9 from whooping-cough, 3 from measles, 3 from "fever" (typhus, enteric, or simple), 2 from diphtheria, and not one from small-pox; in all, 54 deaths resulted from these principal zymotic diseases, against 84 and 66 in the preceding two weeks. These 54 deaths were equal to an annual rate of 2·2 per 1000, which was slightly below the mean rate from the same diseases in the twenty-eight English towns; it ranged from 0·0 and 0·7 in Perth and Greenock, to 2·7 and 5·3 in Dundee. The deaths attributed to diarrhœa, which had been 51 and 29 in the preceding two weeks, were 28 last week, and but half the number in the corresponding week of last year; 12 occurred in Glasgow, 6 in Dundee, and 5 in Edinburgh. The 9 fatal cases of scarlet fever showed a slight further increase upon recent weekly numbers, and included 8 in Glasgow. The deaths referred to whooping-cough, which had been 14 and 11 in the preceding two weeks, further declined last week to 9, of which 4 occurred in Paisley and 3 in Glasgow. The 3 fatal cases of "fever" were below those returned in any recent week. Of the 3 deaths from measles 2 were recorded in Paisley. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 48 and 57 in the previous two weeks, further increased last week to 64, and almost corresponded with the number in the same week of last year. The causes of 62, or 15·3 per cent., of the 404 deaths registered in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had risen from 20·1 to 26·7 per 1000 in the preceding three weeks, declined again to 22·9 in the week ending the 19th inst. During the first eleven weeks of the current quarter the death-rate in the city averaged 23·2 per 1000, the rate during the same period not exceeding 18·7 in London and 15·5 in Edinburgh. The 155 deaths in Dublin last week showed a decline of 26 from the high number in the preceding week, and included 21 which were referred to the principal zymotic diseases, against 23 and 27 in the previous two weeks; 9 resulted from diarrhœa, 5 from fever, 3 from whooping-cough, 3 from scarlet fever, 1 from diphtheria, and not one either from small-pox or measles. These 21 deaths were equal to an annual rate of 3·1 per 1000, the rate from the same diseases being 1·5 in Edinburgh and 1·8 in London. The deaths attributed to diarrhœa, which had increased from 7 to 18 in the preceding three weeks, declined to 9 last week. The fatal cases of fever, which had been 4 and 6 in the previous two weeks, were 5 last week. The deaths referred to scarlet fever and to whooping-cough exceeded the numbers in the preceding week. Two inquest cases and 1 death from violence were registered; and 35, or nearly one-fourth of the total deaths, occurred in public institutions. The deaths both of infants and of elderly persons showed a decline from the numbers returned in the previous week. The causes of 30, or more than 19 per cent., of the deaths registered during the week were uncertified.

Correspondence.

"Audi alteram partem."

"A SPECIAL FORM OF NUMBNESS OF THE EXTREMITIES."

To the Editor of THE LANCET.

SIR,—Having read with much interest in your number of September 5th Dr. Saundby's article on the above subject, the following clinical experience may not be out of place. It has been my lot of late to meet with a series of cases similar to what he has there described. The leading characteristics of my cases were as follows:—1. Sufferers were all women at or about the climacteric period of life. 2. All were stout in a marked degree. 3. Dyspeptic symptoms were present in all save one. 4. Night was the dreaded time for the manifestation of the attacks. In the last case so noted sleep had only been procured by snatches for over a fortnight, the patient having to get up and walk about and to have the limbs vigorously rubbed several times during the night. The line of treatment adopted was a powder given at bedtime consisting of rhubarb, grey, and soda, and repeated for three successive nights, with bromide of potassium in ten-grain doses thrice a day in a bitter infusion. The last case noted, and in which the symptoms were most severe, was treated with the bromide mixture alone, and this because I had come to the conclusion that the bromide was really the active agent in bringing about the desired result in my former cases. In this last case, treated by the bromide alone, recovery was perfect in three days. I am inclined to think that the functional disorder under consideration is connected with vaso-motor disturbances, like many other indefinite phenomena experienced by females about the period of the menopause. Bromide of

potassium acts as a sedative to the vaso-motor system (see article by Dr. Russell Reynolds, *The Practitioner*, July, 1868), hence its action in the class of cases just referred to.

I am, Sir, yours, &c.,
W. B. MOIR, M.D.

Belford Hospital, Fort William, N.B., Sept. 10th, 1885.

To the Editor of THE LANCET.

SIR,—I would not trouble you with any reply to Dr. Notley did not his theory lead to practical conclusions which, I believe, are erroneous. My paper was intended to be clinical. I pointed out the symptom and the way to cure it. Compound rhubarb powder and calomel cure gastric disorder, but do not cure anæmia; hence I attribute the disease to some gastric disturbance, which is often, but not always, obviously present. If Dr. Notley is right, iron should cure these cases; but that has not been my experience. I would ask that my method should have a fair trial. With respect to its success, I may quote from a letter of a medical correspondent—a stranger to me, personally—who writes: "The treatment you recommended in THE LANCET in Mrs. W——'s case was as successful as could be desired. The numbness has already *disappeared*." He goes on to say how much better her digestion is—a tribute of praise which I would accord to the plan of treatment pursued,—which is as good now as it was when Abernethy practised it, though abandoned by too many in favour of more fashionable means.

I am, Sir, yours faithfully,
Birmingham, Sept. 19th, 1885. ROBERT SAUNDBY.

To the Editor of THE LANCET.

SIR,—With reference to Dr. Robert Saundby's article on the above subject, which appeared in THE LANCET of Sept. 5th, I should like to be allowed to point out that a similar, if not identical, form of numbness is mentioned by Dr. Liveing[1] as a phenomenon of the paroxysm of megrim. It is even possible that some of the cases mentioned in Dr. Saundby's article were megrim with some of its phenomena absent or modified; though, if in their previous history there was no record of chronic and recurring headache, this diagnosis could hardly be sustained. The symptoms mentioned by him, however, especially in Cases 3 and 5, are by no means unsuggestive of megrim, and even the drugs on the use of which he lays stress—viz., rhubarb and calomel—are perhaps of all others the most useful in the dyspepsia of megrim, as a good many years of experience in my own case have convinced me. It would doubtless be too much to claim that all similar cases of numbness are megrim or some modification of it, but I think that those of your readers who will now look for this numbness in the light of Dr. Saundby's article, will do well to bear in mind the possibility of megrim.

I am, Sir, yours faithfully,
Welbeck-street, W., Sept. 22nd. A. HAIG, M.B.

TRACHEOTOMY TUBES.

To the Editor of THE LANCET.

SIR,—In your last week's issue is figured an "improved tracheotomy tube" by Messrs. Salt and Sons. As considerable importance attaches to the construction of tubes, I venture to say that I do not consider the present tube is in any way "improved" by the proposed alteration. It will be remembered that the shape of the loops in Fig. A was suggested by Trousseau, and had for their object to prevent inconvenience to respiration from the too close fitting of the muslin cravat which his patients were made to wear in order to protect them from too direct contact with the outer air. They serve also to keep away sponges, or the child's dress, from the orifice of the tube, and allow free discharge of all secretions. I do not think anything will be gained by the change proposed in Fig. B. As for allowing the finger to close the tube more readily when the patient is speaking, I consider this a doubtful gain; for if a patient has need to wear his tube permanently, there are many contrivances of greater value and more suitable for the purpose. I notice, too, that the outer tube is a bivalve, a most unsuitable form for chronic cases, and one which I would gladly see abolished altogether. Finally, I would draw attention to the general outline of the tube for reasons which I have detailed at length in my little work on tracheotomy. I think such a tube should never be used. I am, Sir, yours, &c.,

Old Cavendish-street, W., Sept. 21st. ROBERT WM. PARKER.

[1] On Megrim, Sick-headache, and some Allied Disorders. J. & A. Churchill, 1873, pp. 15, 16, 64-85 *et seq.*

"DIGITAL TENOTOMY IN PIANISTS."

To the Editor of THE LANCET.

SIR,—Your remarks upon this subject seem to me very opportune, for the introduction of the above operation into this country has excited a good deal of interest among pianists, and is likely to lead to indiscriminate attempts at its performance. The operation is not so simple in all cases as might be thought, the great variety in the arrangement of the accessory slips giving rise sometimes to difficulty in their isolation, especially in hands in which none of the tendons are prominent. Certainly, in the case which I recently published, there was no difficulty whatever, a single accessory slip was divided at once, and the result has remained perfectly satisfactory. But it is not always so easy to single out and divide the slips with the limited subcutaneous cut to which I have thought it judicious to restrict myself. As to the question whether the operation ought to be performed at all, we are in the first instance naturally disinclined to undertake any operation, however slight, for other than a surgical purpose; but it is another question whether we ought to withhold our services when a distinct advantage accrues to the person operated upon, provided of course that no great danger is incurred. The bare possibility of the wound not healing by first intention should, of course, be stated to every "would-be" patient, but the risks of the operation are surely infinitesimal. As to the result involving loss of power, this is certainly a mistaken idea. The fact is quite the reverse: the restriction to free movement causes the finger to be weak; when the latter is freed from this restriction, it gains strength. The likelihood of "cicatrical union of the several ends leading to a distinct crippling of the finger" is negatived by the fact that a similar result has never been known to occur among the thousands of tenotomies performed in other parts of the body by skilled operators. Dr. Forbes of Philadelphia has operated upon the ring fingers of fourteen persons since the year 1857, and he reports that "in not one of them did any accident follow the operation." He further states that "the operation does not lessen in the least the power of the common extensor muscle."

In conclusion, I would recommend (1) that the operation be only performed in cases where the tendon slips can be clearly defined; (2) that the patient be first warned that no wound can be made without some danger; and (3) that no one should undertake it who is not practically experienced in dividing tendons. I am, Sir, yours truly,

Queen Anne-street, Sept. 21st, 1885. NOBLE SMITH.

"CHOLERA MALIGNA."

To the Editor of THE LANCET.

SIR,—Dr. Illingworth has impugned the accuracy of my statements, and has quoted a portion of my letter, which he strives to show is inaccurate because incomplete. Dr. Illingworth has evidently quite lost sight of the sentence immediately following the quotation. He will see on referring to my letter again that I quite admit his claim to treat successfully one and all cases of British cholera, but not necessarily those of the Asiatic disease. Dr. Illingworth asserts that the two diseases differ only in degree. What evidence has he to offer on this point? Further on he says that "it is difficult to see how they can be 'quite distinct from each other' when they have 'many clinical features in common.'"

I confess I cannot see the difficulty. Take for example coma due to cerebral apoplexy and that due to opium poisoning: these two resemble each other in many of their clinical features, and yet no one would ever maintain that cerebral apoplexy and opium poisoning are one and the same thing, and that they differ only in degree. Again, what has Dr. Illingworth to say to the late ravages of Asiatic cholera in Spain? Can Dr. Illingworth show anything approaching the epidemic nature of this disease in all his wide experience

of British cholera? Again, Dr. Illingworth asserts that he has not said that opium is harmful in the early stages of cholera. He certainly has not used these words. But what am to I infer from his statement, "that opium should be avoided both in the early and late stages of the disease (English cholera, which, according to him, is one and the same thing as its Asiatic namesake), inasmuch as it is a cardiac depressant in the highest degree, both in small and large doses"? Dr. Illingworth wants my opinion regarding the action of opium. Well, I am sorry to say I cannot agree with him that it is a cardiac depressant in the highest degree; at most it is a cardiac sedative, resembling, in its physiological action on the vascular system, digitalis, rather than aconite or tartrate of antimony, and can even, by oft-repeated doses, be made to act the part of a cardiac stimulant. After all, the action of opium on the heart is perhaps the least of its many important physiological actions; and I have no doubt the beneficial effect of opium in the early (pre-collapse) stages of Asiatic cholera is to be ascribed mainly to its astringent action on the intestinal secretions, though its diaphoretic and sedative effects are not to be lightly considered. On the other hand, I do not deny that chloral hydrate is a serviceable remedy in cholera; it certainly can be administered when opium cannot, and that is in the collapse stage, its anti-spasmodic action making it specially useful in severe cases of cramps. It seems to me strange that though Dr. Illingworth objects to opium on account of its supposed depressant action on the heart, yet he nevertheless advocates two notable remedies which are apt to produce cardiac depression in large doses, or even in small doses if repeated frequently, which is pretty sure to be the case—viz., carbolic acid and chloral hydrate. Regarding Dr. Illingworth's bold assertion, that chloral hydrate is a safer and better sedative than opium or morphia, I look upon it merely as a matter of opinion, unless Dr. Illingworth had the treatment of young children in view when he penned those lines.

My object in writing to you, Sir, was not, as Dr. Illingworth imagines, to enter into a full and thorough criticism of his letter, but merely to point out—(1) the value of opium in the early (not collapse) stages of cholera, and (2) the importance of dietetic treatment. It was never my intention to take up the treatment of cholera in all its stages. Had such been my object I would at least have devoted a few lines to suppression of urine, which is of frequent occurrence in the collapse stage, and the occasional good effects of spirit of nitrous ether in that condition. Dr. Illingworth feels aggrieved, because I called his considerations "theoretical." He certainly cannot consider them practical, as he has evidently never seen a case of true Asiatic cholera (cholera maligna). Further, the "considerations" on which he bases his treatment—e.g., action of opium—are liable to be called in question.

I am, Sir, your obedient servant,

Brixton, Sept. 15th, 1885. GEO. CARRINGTON PURVIS.

To the Editor of THE LANCET.

SIR,—Kindly allow me, what for myself must be a final word at present on this subject, space to answer Dr. Illingworth's letter which appeared in your issue of Sept. 5th. In my first letter I had no desire to open any discussion, nor encroach upon your valuable space, but merely wished to correct a slight misunderstanding as to a statement made by my brother, who has had large experience of malignant cholera in India.

What evidence is there that the premonitory diarrhœa is not the predisposing cause of cholera proper? Dr. Sanderson's experiments with mice have proved that the poison of cholera is contained in the dejecta. Cholera has been spread by persons suffering from the premonitory diarrhœa as well as by that diarrhœa following in the course of convalescence. Most recorded epidemics have sent forth, so to speak, the signal of their near approach by the onset of a somewhat severe epidemic of diarrhœa, and this lasts also during the presence of this plague, for such it may be termed. The statistical tables of the Registrar-General show that at this period two days are about the average duration of fatal cases, as compared with sixteen when cholera is not present. Where dispensaries have been established on board ship, in barracks, and other establishments where a certain amount of supervision is carried out (diarrhœa cases being early cared for), the number of cases have been stated to be considerably less, and the ravages of cholera have been kept somewhat in abeyance, as compared with their surroundings where no such supervision has existed. Then, again, there is much to be learnt from the sudden outburst of cholera at the religious affair of Hurdwar given in the report of the Sanitary Commissioner with the Government of India in 1867. With all this evidence, may we not fairly look upon a large proportion of cases as cholera in a mild form, or a premonitory diarrhœa which, if not checked, runs on to cholera in its worst form?

Dr. Illingworth must not be hard on me, for I had been speaking largely from my own experience of the disease, so why bring a charge of impartiality and inaccuracy? The statement on his own part that "there can be no true cholera, be it English or Asiatic, without vomiting" is in itself inaccurate, so therefore his criticism is not safe. It has fallen to my lot to see at least three patients succumb to the disease without either vomiting or purging; furthermore, there is a report of such a case in the records of the Middlesex Hospital, together with a description of the post-mortem examination. The most fatal—that is to say, of severe collapse—cases are those without any discharge whatever during life.

If there is cardiac depression, why will not stimulants relieve? Alcohol makes matters worse. Bleed a patient with cardiac depression, and the result is directly opposite to that obtained in the collapsed stage of cholera. Venesection in cholera will at times restore a patient for a short time to apparent health. Would it be so if there was cardiac depression?

Of the salts of ammonia I have had experience in cases treated by myself, and found them useless. (I refer, of course, to the time when the disease is fairly established.) Again, I find Dr. Illingworth inaccurate when he states "that carbolic acid has been found by him to have no appreciable effect." I never administered carbolic acid internally, for the reason that during the terrible epidemic which swept through China and Japan towards the end of the summer of 1877 I saw it extensively given in the town I was then stationed at, with but poor results; in fact, "no appreciable effect," and this in nearly two hundred cases, hence my unsettled faith in it. What I had gleaned from various authors, together with my own experience of the disease, led me to state that as yet no specific had been discovered. Certainly, if the thousand and one remedies had failed, I quite agree there is no reason why the thousand and second should not prove equal to the occasion; but if the thousand and second is named in Dr. Illingworth's letter, then I again say there is at present no specific discovered that will be of much benefit in the collapse stage of Asiatic cholera. What the evidence? 100,000 deaths in a few weeks not many miles from our own shores.

Pathologically considered, the collapse stage should be relieved, or even cured, by nitrite of amyl inhalations, considering that the inhalation of the vapour of this drug relaxes the muscular arterioles—but such is not the case; or by the eliminative treatment as practised by Dr. George Johnson at King's College Hospital, and afterwards by Dr. Macnamara (who was house-physican at that hospital during the epidemic of 1866) in India, where it proved a complete failure. Treating the disease according to its pathological conditions has not been, to say the least, encouraging. With Mr. Purvis, I know of no remedy which can stay the progress of the disease when the stage of collapse has set in.

Dr. Illingworth will find that carbolic acid, chloral, belladonna, ammonia, &c., have been frequently tried in London. If he refers to the Statistical Red Book of the Health of the Army (published yearly), morphia, apomorphia, nitroglycerine, cotoin, paracotoin, and rumicin have all shared the same fate—condemnation. This, again, brings me to the verdict that but little is to be expected from our craft in the collapse stage. I am, Sir, yours faithfully,

Devonport, Sept. 5th, 1885. M.R.C.S.E., L.R.C.P. ED.

SWALLOWING A SCARF-PIN.

To the Editor of THE LANCET.

SIR,—On Sunday, Sept. 13th, 1885, I was called in at 9.30 A.M. to see M. J——, aged fourteen months, who had just swallowed a scarf-pin (herein enclosed). The drawing annexed gives the exact size of the pin and a fair idea of its formidable aspect.

The history of the case is as follows. An elder brother,

about eight years of age, handed to his baby sister the pin, which she put into her mouth. The mother attempted to extract it with her finger and thumb, but it fell into the gullet and passed into the stomach. When I arrived the

child was in no distress. I advised the parents to leave matters alone, and to resist the temptation to give either purgatives or emetics. About 6 P.M. on the same day the scarf-pin was passed by the bowel. The child was quite well, and free from pain from first to last.

There are points of interest to be noted in this case. 1. The apparently formidable character of the foreign body, and its satisfactory expulsion without interference. 2. Its passage along the whole course of the alimentary canal within ten hours, from which we may gauge the pace of the intestinal peristaltic motion. 3. The confidence with which the natural fears and anxieties of parents may be allayed by informing them that as a matter of fact children are constantly swallowing all sorts of such things with impunity, when their parents or nurses are in blissful ignorance of what has happened.

I am, Sir, your obedient servant,
ARTHUR T. H. TREVOR, M.R.C.S., L.R.C.P. Lond.
Beaumaris, Sept. 14th, 1885.

THE PRELIMINARY EXAMINATION.

To the Editor of THE LANCET.

SIR,—In my capacity as Dean of the School I find that students about to enter do not appear to be aware of the fact that on and after October 1st no person will be allowed to be registered as a medical student unless the subject of elementary mechanics has been included in the Preliminary Examination. Heretofore students could pass in this subject after registration.

I am, Sir, yours faithfully,
F. DE HAVILLAND HALL.
Westminster Hospital Medical School, Sept. 23rd, 1885.

EDINBURGH.

(From our own Correspondent.)

EDINBURGH UNIVERSITY BUILDINGS FUND.

A subscription of £250 to the University New Buildings Fund has been intimated by Mr. Alexander Tod, of St. Mary's Mount, Peebles. The object of this fund is to further the completion of the handsome buildings in Teviot-row, which accommodate the Medical Faculty. The sum required for this purpose is nearly £100,000, of which about one-tenth is already subscribed; and the additions to the present buildings, which it is intended to carry out in completing the original plan, are a lofty tower and a spacious hall. The latter is particularly a desideratum, as the University has at present to go far afield to obtain a hall of dimensions suitable for graduation ceremonials, meetings for University business, and other academic functions. Of the sum of £220,000 already expended in bringing the buildings to their present stage of completion, £140,000 was raised by private subscription within a period of less than ten years, and £80,000 was contributed by Government. The funds already in hand are allowed to accumulate until a sufficient sum shall have been acquired to warrant the recommencement of building operations. The building was designed by Mr. Rowand Anderson, architect, and it is one that, when completed, will form a striking addition to the many examples of chaste architectural conceptions with which Edinburgh is already so richly endowed.

PUBLIC BATHS FOR EDINBURGH.

The Town Council has resolved to devote a sum of £11,000 to the construction of public swimming and plunge baths, upon the site of land which was till recently occupied by the Old Edinburgh Infirmary. The plan which has been accepted provides separate premises for men and women, and in each department there will be a spacious swimming-pond and a series of plunge baths. Edinburgh has of late displayed a most wholesome interest in this important hygienic question, and this year has already witnessed the opening of a very complete series of baths of all descriptions under the auspices of the Drumsheugh Baths Company, whose premises, situated at the west end of the city, constitute a clubhouse for bathing purposes. In the last few years the Municipality of Glasgow has expended a quarter of a million in the construction of public baths and washhouses, and other Scottish cities are now displaying a similar activity.

UNIVERSITY GRADUATION ADDRESS, 1885.

The annual address delivered to the graduates at the ceremonial on August 1st has been published as a small pamphlet. Professor Greenfield has done well in acceding to the urgent request of many of his friends, who desired to possess in a permanent form the text of his impressive address, and many besides those who were present at the ceremony will find in it matter of considerable interest.

Edinburgh, Sept. 22nd.

THE ABERDEEN ROYAL INFIRMARY.

(From our own Correspondent.)

LET us hope that we have heard the last of "that infirmary scandal," and that the managers will now settle down to the carrying out of the reforms so much required to put the institution in such a state as to command the confidence and support of the public. At their quarterly meeting, held last week, the managers had under consideration the report of the House Committee, giving the result of their investigations into the special charges brought against them by Dr. Angus Fraser in his memorable after-dinner speech and long letter published in the local papers. The case that caused the greatest sensation was that of the patient who died from secondary hæmorrhage on the fourth day after amputation at the thigh. The operation was performed by Dr. Garden, who declared that, on arriving at the bedside of the patient, to which, on account of the bleeding, he had been summoned by telephone, he found neither nurse nor house-surgeon in the ward. This statement he afterwards modified to the effect that he believed he "did see a girl there who was a probationer." That she was a probationer he only afterwards learned, and it seems she was one of sixteen months' training. Towards the conclusion of the long report, which is based on evidence showing an amount of cross-swearing not very creditable to the parties involved, the House Committee say that they "are not of opinion that blame is attachable to any one, or that the fatal conclusion might not have happened in the most favourable circumstances." A motion that the report be approved and adopted was carried by 55 votes to 17. There it was hoped the matter would drop, and it was, to say the least of it, disappointing to find the *Free Press* characterise the result as one of those victories which are worse than defeat, thus encouraging people to believe that there was something kept back which it would not do to make public, and so helping to undermine what little confidence in the infirmary there still exists. The fact remains, however, that nothing short of what will practically be a new hospital will put the institution upon a proper footing. There is no lack of money in and about Aberdeen for this purpose, and this the new Committee, appointed on the motion of Prof. Struthers, may see its way to ask for with a reasonable hope that it will be forthcoming. This new "Committee appointed to consider the whole system of the hospital" has power to call in the aid not only of one but of as many "experts from a distance" as may be deemed advisable to help it in deciding what reforms are necessary and how they should be carried out.

A WARD FOR THE DISEASES OF WOMEN.

On the motion of Professor Stephenson, at the same meeting, it was unanimously resolved "That the Committee of Management be instructed to provide in the plans for the extension of the infirmary a special ward for the diseases of

women, and a reception ward for cases which cannot be sent at once to their proper wards." This is a step in the right direction, and ought to be followed by others quite as necessary if the hospital is to be fully equipped. At present there is no aural surgeon attached to it, and the neglect of diseases of the ear is a greater disgrace even than the want of a special ward for the diseases of women. The ignorance displayed by the majority of practitioners in the treatment of ear cases is deplorable, and will continue to be so until the subject gets more attention in our hospitals.

WHAT A VISITOR SAYS.

A Mr. W. Dunnett Spanton, F.R.C.S.Ed., "one of the surgeons of the North Staffordshire Infirmary," has recently visited Aberdeen, and, after reading "with painful interest" the report of the committee, he submitted the Royal Infirmary to a most searching examination, and gave expression to his feelings and conclusions in a long letter to the *Free Press*. In it he mentions ten, which are only some of the points which struck him as a stranger. To show that, however desirable, it would not be convenient to give Mr. Spanton's "points" in full, the first may be quoted as it stands. The reader must be content to get only the text, so to speak, of the others: 1. "The close, unwholesome atmosphere which pervades the greater portion of the building, is due to the absence of any proper system of ventilation." How is that for simply stating that the ventilation is bad? 2. "The low windows in most of the wards, and their insufficient size ....." 3. "The dark, unwholesome passages and closets....." 4. "The absorbent flooring....." 5. "The entire absence of proper baths and lavatories....." 6. "The system of drainage within the building ..... most defective arrangement of the drain-pipes." 7. "The deficiency of w.c. accommodation ....." 8. "No disinfecting apparatus." 9. "In the wards themselves there are no lockers for the patients ....." 10. Want of proper accommodation for nurses. If the managers can resist Mr. Spanton's last argument, then the sooner they are "improved off the face of the earth" the better. It is, that though "there is now in Aberdeen as good a College of Medicine as exists anywhere for teaching facilities," still he cannot conscientiously carry out his wish to send his son to it "until the hospital has been made in reality what it pretends to be now—a properly arranged and well conducted institution." It is very kind of Mr. Spanton thus publicly to give the managers the benefit of his advice, but unfortunately he has pointed to nothing new, for all the "points" have been brought up, directly or indirectly, by Dr. Fraser and others.

ASSISTANT-PHYSICIANS AND SURGEONS.

The Aberdeen Infirmary is surely unique in the fact that while it has a staff of three physicians, three surgeons, and one eye surgeon, there is only one extra medical officer—viz., a junior surgeon. Not only the work of the infirmary, but the interests of the medical school, demand that there should be at least two assistant-physicians and two assistant-surgeons. Then there would be less heard of the want of bedside teaching, and students wandering about the wards without anyone to guide them in their work. More may be said about this on another opportunity, but meantime it must, in justice, be said that the clinical teaching is not such a weak point in the Aberdeen school as it is often said to be.

Aberdeen, Sept. 21st.

IRELAND.

(From our own Correspondent.)

ROYAL UNIVERSITY OF IRELAND.

THE third report of the Royal University expresses satisfaction that the progress of the first two years of its existence as a working institution has been maintained, and that there is every ground for hoping that its success is assured, and that it will take rank in the future among the permanent institutions of the country. During the year 1884, 2101 passed the various academic faculties of the University. The number of women students who may venture to avail themselves of the opportunities presented to them by this University cannot be large, because the condition of the great majority of the girls' schools throughout the country is not generally such as would admit of the training of their pupils for the more strict and difficult studies that form the staple of university education. What has already been accomplished by them would seem to justify the anticipations which suggested the provision of the Act of 1879 and of her Majesty's charter, by which the examinations, honours, and prizes of the University were made open to women as well as men. The Drapers' Company of the Corporation of London, who hold property in Derry, have intimated their intention of establishing a scholarship, tenable for three years, of the annual average of £35, to be awarded to the lady student obtaining the best place on the honours lists at the matriculation examination of the University.

CITY OF DUBLIN HOSPITAL.

This institution having been inspected by the engineer of the Dublin Sanitary Association, a complete new sanitary system has been adopted, including the erection of an annexe for closets and sinks at a cost of about £400. The Herbert Ward is being remodelled at an expense of £150, the cost having been undertaken by Lord Pembroke.

THE BLANEY BEQUESTS.

By the will of the late Mr. Hugh Blaney, of Dublin, a sum of £100,000 has been left to charitable, religious, and educational establishments. The testator directs that the dividends of shares, &c., be paid each year to the various charities. The Mater Misericordiæ Hospital will obtain about £240 yearly; and Mercer's, St. Vincent's, and Jervis-street Hospitals will participate in the funds in a less degree.

A SEVENTH ATTEMPT AT SUICIDE.

A woman named Ward, who was recently an inmate of Mercer's Hospital, Dublin, was this week sentenced to a term of imprisonment for having, by swallowing phosphorus, attempted for the seventh time to commit suicide. On the previous attempt, which occurred a few months back, she was admitted into the Adelaide Hospital, and very nearly succumbed to the same poison, having been insensible for nearly three days. A person making such repeated attempts at self-destruction appears a more suitable subject for a lunatic asylum than for a prison.

HEALTH OF IRELAND FOR 1884.

The births registered during the past year numbered 118,875, or a rate equal to 24·0 per 1000, which is considerably under the average rate (25·3 per 1000) for the ten years 1874-83. The deaths recorded amounted to 87,154, being equal to 1 in 56·9, or 17·6 per 1000 of the estimated population. The death-rate was somewhat under the average for the previous ten years.

DEATH OF WILLIAM HEDDERMAN, L.R.C.S.I., L.K.Q.C.P.

This gentleman died on the 21st inst. at Sandymount, near Dublin, after a tedious illness of some nine months, aged thirty-one years. He held the post of medical officer to No. 2 Rathkeale dispensary district, co. Limerick, and his loss will be greatly felt in the locality where he practised, his kind unassuming manner and professional skill endearing him to a large circle of friends. He leaves a widow and three children to mourn his untimely decease.

Dublin, Sept. 23rd.

PARIS.

(From our Paris Correspondent.)

PROFESSOR PETER ON CHOLERA.

THE last two meetings of the Academy of Medicine were taken up principally with a paper by Professor Peter on that interminable subject, "Cholera." Those who have taken part in the discussions during the last few years on the nature or etiology of cholera seem to render the subject more obscure than ever, and Professor Peter, notwithstanding his great erudition, has not been more successful than his predecessors in throwing more light upon it. He is, however, a great partisan of M. Jules Guérin's theory, which may be summed up thus: Indian cholera is the final expression of a morbid, progressive series which begins with simple diarrhœa and goes on to choleraic diarrhœa. From this it develops itself into cholera nostras, or sporadic cholera, which in its turn becomes Indian cholera. If one or two cases only of the latter occur, the disease is termed "cholera nostras"; should there be a hundred, then it is called "Indian

cholera." According to Professor Peter, cholera is contagious, but its contagiousness is relative. To take effect it must meet with subjects who are prepared for it either by congenital or acquired debility, or by a long sojourn in an infected locality. An epidemic of cholera may originate spontaneously, as was established this year at Marseilles; it then becomes infectious, when it is transmissible and importable. To the question, What is cholera? Professor Peter replies that it is a poisoning by uræmia, by cholæmia, by extractihæmia, analogous to what is produced by ptomaines, analogous to "choléra stibié," or to "cholera arsenical." As regards treatment, Professor Peter advises measures to combat the irritation of which the solar plexus is the seat, as he established at the autopsies of cholera patients; blisters to the pit of the stomach, subcutaneous injections of morphia, continued currents, one electrode being placed at the epigastrium and the other in the rectum. He also derived great benefit by the application of Dr. Chapman's ice-bags to the spine. In addition to these, cramps should be combated by dry frictions, vomiting and thirst by swallowing fragments of ice, collapse by subcutaneous injections of ether, &c. In the period of reaction we must imitate nature, respect polyuria, and even encourage it by the aid of tisanes, to which is added nitrate of potash. Diarrhœa must be equally respected, and should be even provoked by a small dose of calomel. Against nervous accidents the bromide of potassium should be administered; and if there is any delirium, give from fifty centigrammes to one gramme of the sulphate of quinine. During convalescence, moderate diarrhœa, if it persist, should be met with laudanum and the subnitrate of bismuth; apply, if necessary, a blister to the epigastrium. If the urine is albuminous, dry cupping should be applied to the lumbar region, or the latter may be painted with the tincture of iodine. Such is the polypharmaceutic treatment recommended by Professor Peter for cholera, which, it may be seen, is simply the therapeutics of symptoms; and it is to this system he ascribes the fact that he had last year a mortality of only 37 per cent. from the disease.

DECREASE OF CHOLERA IN FRANCE.

The cholera is manifestly on the decline in the south of France. The hospital internes who went to afford aid at Toulon have returned to Paris, their services not being required; and in consequence of the steady improvement that has taken place in the sanitary condition of the town, the military authorities have already taken measures to effect the return of the troops, which were dispersed to their barracks.

THE LEGION OF HONOUR CONFERRED ON A HOSPITAL SISTER.

On the morning of the 17th inst. a rather interesting ceremony was witnessed at the Pharo at Marseilles. The Prefect of the Bouches du Rhône, in the presence of the Administrative Commission of Hospitals, decorated Sister Saint-Cyprian, Superior of the hospital sisters of Saint Augustin, with the Cross of the Legion of Honour. Sister Saint-Cyprian is seventy-three years of age, and has been employed in the hospitals of Marseilles forty-three years.

DYSENTERY AMONG FRENCH TROOPS.

A few cases of dysentery lately occurred among the troops in the barracks of the Ecole Militaire of Paris, which threatened to assume the proportions of an epidemic; but I am glad to say that the disease has almost entirely disappeared.

Paris, Sept. 23rd.

THE SERVICES.

WAR OFFICE.—Grenadier Guards: Surgeon C. E. Harrison, M.B., to be Surgeon-Major, vice J. H. C. Whipple, M.D., retired.

ARMY MEDICAL STAFF.—Surgeon-Major Oliver Codrington, M.D., to be Brigade Surgeon, vice H. Ferguson, retired.

INDIA OFFICE.—The Queen has approved of the following promotions and alteration of rank among the Officers of the Staff Corps and Indian Military Forces made by the Governments in India:—Brigade Surgeon William Farquhar, M.D., of the Madras Medical Establishment, to be Deputy Surgeon-General, Surgeon-Major James McDonald Houston, M.D., Surgeon-Major William Howland Roberts, M.D., and Surgeon-Major Robert Edmund Pearse, all of the Madras Medical Establishment, to be Brigade Surgeons.

YEOMANRY CAVALRY.—Worcestershire: Arthur Oliver Holbeche, Gent., to be Surgeon.

ARTILLERY VOLUNTEERS.—1st Forfarshire: Surgeon John W. Wemyss resigns his commission; also is permitted to retain his rank and to continue to wear the uniform of the Corps on his retirement.

ENGINEER VOLUNTEERS.—1st Gloucestershire: John Hugh Rees, Gent., M.B., to be Acting Surgeon.

RIFLE VOLUNTEERS.—5th Durham: Surgeon Philip Brown is granted the honorary rank of Surgeon-Major.

Obituary.

JOHN GAY, F.R.C.S.

THE subject of this memoir was born at Wellington, in Somersetshire, in the year 1813, and, having elected to enter the medical profession, was articled to the late Mr. Bridge, a well-known and highly esteemed practitioner, of whom Mr. Gay always spoke in the highest terms of affection and respect. In due course Mr. Gay became a pupil at St. Bartholomew's, at a period when the surgical staff was represented by such men as Lawrence, Vincent, and Stanley. Ardent in the pursuit of knowledge and learning, and leaning strongly to the side of surgery especially, Gay worked diligently in the class-rooms, in the dissecting-rooms, and in the wards of the hospital. He made such good use of his opportunities that he competed for and obtained the first prize for surgery offered at St. Bartholomew's by Lawrence. James Paget, with whom a kindly intercourse existed throughout his whole career, was one of his fellow students.

In 1834 he passed his examination at the College of Surgeons, and in the following year, a vacancy having occurred on the staff of the recently-instituted Royal Free Hospital, he was elected to the post of surgeon, and there he laid the foundation of the success which he obtained in after-life. He enjoyed unusually good opportunities of seeing every kind of surgical practice, and the result of his work there was shown by the publications which he brought before the profession in memoirs and papers, which we shall refer to further on.

Mr. Gay soon began to acquire the confidence both of the profession and the public; and having elected to take his stand in this city, he was more especially consulted by the medical men there and in the neighbouring outskirts, and acquired a considerable practice, devoting also much time to scientific research. He continued on the surgical staff of the Royal Free Hospital for a period of eighteen years, and having taken an interest in the foundation of the Great Northern Hospital, he attached himself to that institution as its senior surgeon; and under his auspices and those of his colleagues, amongst whom were those two able men, the late Peter Price and Carr Jackson, this hospital rapidly increased in reputation, and Gay did much good work there. He shone in social life; he was one of the most hospitable men in our profession, and both at his house in Finsbury-place and afterwards at Hampstead, where he resorted after the labours of the day, he took the greatest pleasure in collecting his numerous friends, both those in and out of the profession. Of the former, he was intimately associated with the late Mr. Coulson, Dr. Hodgkin, Dr. Conquest, Dr. Peacock, and Sir William Fergusson; and that late excellent surgeon, Mr. Jordan of Manchester, was always at his house when he came to London, which he constantly did for the purpose of seeing the practice in the various hospitals of the metropolis, continuing this even to extreme old age.

Mr. Gay's contributions to surgery were numerous and of such a nature as to indicate not only great industry and devotion, but a considerable amount of originality as well. The first work of importance which he brought before the profession was a treatise on the "Anatomy, Pathology, and Surgery of Femoral Hernia," published in 1848. He entered at great length into the anatomy of the parts concerned in femoral rupture, and described a new method of operating, which in reality was a modification of the method suggested by Mr. Luke, that of dividing the constriction outside the sac of the hernia. In fact, the principle of the operation consisted

in reaching the seat of stricture, when external to the sac, by a small incision made through healthy structures and in such a situation that this hernial mass shall not be injured or disturbed thereby. The operation for femoral hernia in instances where it could be effectually practised was rendered much more simple in this manner; and, in order to show that this method was accepted as of high practical value, we may quote from the Practical Surgery of the late Sir William Fergusson. Whilst speaking on the subject of femoral hernia, he says, at page 643, "For many years I have rarely performed any other operation for crural hernia than that which has been recommended by Mr. Gay;" and further on he says, "By this simple difference a vast improvement has been effected in the operation for crural hernia." The work in question was a valuable addition to the literature of hernia, and exhibited great industry and laborious research on the part of the author.

Mr. Gay was the first to advocate another important practice in connexion with joint disease. Formerly surgeons were afraid to meddle with joints in a state of acute suppuration, but Mr. Gay recommended that free incisions should be made, and by this means an outlet was afforded for the matter and débris contained. This practice has now been thoroughly accepted by most surgeons, and the suggestion was a valuable contribution to practical surgery.

Another suggestion of great practical value was made by Mr. Gay with reference to the treatment of chronic and indurative ulcers of the leg. This consisted in the recommendation to make lateral incisions more or less deeply through the indurated tissues around the ulcer, and thus to take the tension off the edges of the sore. The principle was a sound one, and the practice was good and effective.

In the year 1867 Mr. Gay gave the Lettsomian lectures before the Medical Society of London, and in these lectures he dwelt comprehensively and most intelligently on the varicose disease of the lower extremities, having made many experiments and conducted laborious dissections for the purpose of illustrating his subject. These lectures were published, and form a treatise of considerable value and interest.

His latest contribution to surgical literature was a small treatise on Hæmorrhoidal Disease, which also indicated much research and careful thought. To the medical press Mr. Gay from time to time sent papers of great practical value on some of the more important points in surgery, and his views were always accepted with great respect and confidence. He was for several years a constant attendant at the Societies, especially at the Pathological and Medical Societies of London, of which he was one of the most efficient and courteous presidents.

Mr. Gay was not only highly esteemed by and justly popular with his professional brethren, but he was a great favourite outside the circle of his own calling. He was naturally a clever man, and he had greatly improved his abilities by cultivating those tastes which go to adorn social life as well as to enhance the position and utility of a professional career. He was very fond of music and art, and amongst his numerous friends outside the profession were Madame Otto Goldschmid, Madame Titiens, Sir J. Millais, Eliza Cook, and the late Sir Moses Montefiore.

Mr. Gay was somewhat small in stature, very active, and enjoyed good health until about two years since, when symptoms of brain mischief showed themselves. An attack of partial paralysis occurred, and he was compelled to withdraw himself from all professional and social life. Disease made slow but sure progress, but his healthy frame resisted its destroying power for nearly two years. Latterly, there was little left but the body, and it was sad for those of his friends who visited him from time to time to witness the havoc which had been made in that bright and vigorous intellect, all being now, with the exception of some lucid intervals, dark and clouded. Thanks to the admirable care and unwearied attention of the most devoted of wives, this long and dreary ordeal was robbed as much as possible of the sufferings and trials attending such a passage through the valley of the shadow of death.

He died tranquilly on the 15th inst., leaving behind him the most pleasant of memories. Somewhat excitable and impetuous by temperament, he was, as is often the case with such dispositions, animated by deep principle and a high sense of honour; and it may be with truth affirmed that few men in our profession have led a more useful life, or have gone down to the grave more beloved than John Gay.

H. S.

FRANCIS HARRIS, M.D. CANTAB.

WE regret to have to record the death of Dr. Harris, consulting physician to St. Bartholomew's Hospital, at the early age of fifty-five. He was the son of the late Mr. John Rawlinson Harris, M.P. for the City of London. His professional education was commenced at Caius College, Cambridge, where he took his degree of Bachelor of Medicine in 1854. He became a member and subsequently a Fellow of Royal College of Physicians. His more strictly professional education was pursued at St. Bartholomew's Hospital. He did not confine his studies to the strictly medical part of his profession, but cultivated surgery also. At one time he appeared disposed to follow the special department of obstetrics and diseases of children, for which he had a great liking and exceptional aptitude. But a man is not at all times master of his own career, and circumstances drew Dr. Harris into the department of medicine proper. He became in due course assistant physician to St. Bartholomew's Hospital, and subsequently physician. At an early period of his career he filled the chair of Botany in the Medical School of St. Bartholomew's, where he was fully appreciated as a clear and earnest exponent of this not very popular subject of medical study. But it was in the wards and in the post-mortem theatre where Dr. Harris's former friends will best remember him. He was contemporary with Mr. Tom Smith and Mr. Callendar, at a period of great intellectual activity in the school at St. Bartholomew's. Circumstances placed Dr. Harris beyond the necessity of an active professional career, but he was an earnest student, a clear-headed physician, with kindness of heart and gentleness of manner which will be long remembered by his patients at St. Bartholomew's and the poor around his country home in Kent.

Medical News.

SOCIETY OF APOTHECARIES.—The following gentleman passed his examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received a certificate to practise on the 17th inst.:—

Montague, Arthur John Helm, Uxbridge House, Uxbridge.

At the recent examination for the Prizes in Botany given annually to young women by the Society of Apothecaries, the following candidates were successful:—

1st.—Lilian Jane Clarke. Gold Medal.
2nd.—Emmiline Florence Carder. Silver Medal.

[Mr. R. O. Satchell, who in our last issue was represented as having pased in Latin only, has, we are informed, passed also in Elementary Mechanics.]

THE Lord Mayor's Fund for the relief of the sufferers by the cholera in Spain amounts to £2800.

DEATH FROM LEAD-POISONING.—On Wednesday Sir J. Humphreys held an inquest at the Holborn Infirmary, City-road, on the body of a woman who died, after three weeks' illness, from lead-poisoning.

THE medical men of St. Petersburg have resolved to celebrate the twenty-fifth anniversary of the liberation of the serfs by establishing a hospital for peasant children suffering from chronic disease.

AT an inquest held on the 19th inst. at Bridgewater, on the body of Dr. F. Farmer, one of the borough magistrates, who expired suddenly on the preceding night, the jury returned a verdict of "Death from heart disease."

THE Mayor of Portsmouth on Tuesday laid the foundation stone of the new sanitary works, which are expected, when completed, to cost £100,000. They are designed by Sir Frederick Bramwell, but at present only the collecting sewage tank has been taken in hand.

"A FEVER TRAP IN THE CITY."—Under this heading, a correspondent to *The Times* calls attention to the large circular open grating, apparently intended to serve as a ventilator to the main sewer, in the busy main thoroughfare of Cannon-street, and right in the track of the thousands who make use of the Mansion House Station of the District Railway.

VACCINATION GRANTS.—Dr. W. J. Smyth, of Shipley, Yorkshire, and Dr. Forsyth, North Brierley Union, have been awarded the Government grant for efficient vaccination in their respective districts, each for the third time.

CHARTERHOUSE SCIENCE AND ART SCHOOLS AND LITERARY INSTITUTE.—The winter session of this, one of the largest Science and Art Schools in the United Kingdom, will commence on Saturday, Oct. 3rd. Mr. C. Smith is the organising secretary.

AT a meeting of the St. Luke's and Clerkenwell vestrymen, who recently engaged in a cricket match for the benefit of the funds of the Royal Hospital for Diseases of the Chest, City Road, a profit of £50 as the result of the match was reported, which sum will be duly handed over to the treasurer of the hospital.

RIVER POLLUTION.—At the Watford County Court on the 14th inst., a case was heard in which the Herts Rural Sanitary Authority proceeded against the proprietors of the Loudwater Paper-mills for fouling the River Chess with refuse from their works. The defendants did not appear, and evidence having been given by experts as to the condition of the stream as proved by analysis of the water, the judge granted a prohibition, allowing costs on the higher scale.

MASON SCIENCE COLLEGE: THE PROPOSED HESLOP SCHOLARSHIP.—At a public meeting held in the Council-chamber on the 3rd of July, 1885, the Mayor (Alderman Martineau) in the chair, it was resolved: "That it is desirable to commemorate the services rendered to Birmingham, and especially to its charitable and educational institutions, by the late Dr. T. P. Heslop, F.R.C.P.," and a subscription list was opened. It was also resolved that the subscriptions to the amount of £1000 should be applied to the foundation of a Scholarship at the Mason College, tenable by pupils from the schools on the foundation of King Edward VI., and that any surplus beyond £1000 should be appropriated to the purposes of the Mason College Library. The subscriptions already amount to nearly £800. The Mayor of Birmingham is treasurer of the fund, which will close on the 30th inst.

THE "MISKIN HANE."—The Constantinople correspondent of the *Journal des Débats* has recently published in that paper a vivid description of the "Miskin Hané" or Lepers' Hospital at Scutari. The hospital is in the centre of the vast cemetery in which so many millions of dead have been interred since Constantinople was first built, and is surrounded by the splendid cypress trees, the dark green of which contrasts so well with the blue outline of the Sea of Marmora and the shores of Asia Minor in the distance. The building itself is a quadrilateral about 120 feet long, and with only one storey. To the right of the entrance is a small mosque, in which the lepers recite their five prayers a day, this being their only distraction. In the centre is the courtyard, upon which open twenty rooms, and it is in these that twenty-seven sufferers drag on a miserable existence. Their rooms are lighted by a small window, with wooden bars, while in the way of furniture there is nothing but a mattress thrown upon the ground and a few common utensils. More abject misery, states the correspondent, it is impossible to conceive, but it is satisfactory to learn that steps are being taken towards the erection of a new hospital in which these unfortunate beings may be treated with some chance of cure.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BENNETT, ARTHUR, M.D., M.Ch., L.R.C.P.L., M.R.C.S., has been appointed Health Officer for the Shire of Dundas, Victoria.

BURGESS, EDW. ARTHUR, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Fransham District of the Mitford and Launditch Union, vice Taylor, resigned.

HOOKER, CHARLES PAGET, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to the Workhouse and South District of the Cirencester Union, vice Wilson, resigned.

JACK, JOHN SEMPLE, M.B., C.M.Glas., has been appointed Medical Officer to the Workhouse, Rothbury Union, vice Barrow, resigned.

JONES, JOHN ELLIS, M.B., C.M.Ed., has been appointed Medical Officer for the First District of the Chorley Union, vice Paterson.

LEPPER, ROBERT JOHN, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Resident Medical Officer for the Murray District, West Australia.

PATTON, A. S., M.B., B.Ch.Dub., has been appointed House-Surgeon to St. Mark's Ophthalmic Hospital, Dublin.

POTT, FRANCIS H., M.R.C.S., has been appointed Resident Medical Officer to the Boscombe Infirmary, Bournemouth, vice George H. Dawson, M.R.C.S., L.R.C.P.Ed., resigned.

POULTON, BENJAMIN, M.D., M.R.C.S., has been appointed Senior House-Surgeon to the Adelaide Hospital, South Australia.

ROXBURGH, DAVID, M.B., C.M., has been appointed House-Surgeon to the Isle of Man General Hospital and Dispensary.

TURNER, ELLERY, M.R.C.S., has been appointed Medical Officer for the Brandesburton District of the Skirlaugh Union, vice Edlington, resigned.

WARNER, FRED. ASHTON, M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to the Belgrave Hospital for Children.

WILSON, FRANCIS, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to the Workhouse and First District of the Keighley Union, vice Holman, resigned.

Births, Marriages, and Deaths.

BIRTHS.

HOPE.—On the 20th inst., at Fairfield House, Victoria-park, Manchester, the wife of William Hope, M.D., of Curzon-street, Mayfair, of a daughter.

JOBSON.—On the 21st inst., at Keillour House, Perthshire, the wife of Brigade-Surgeon Jobson, M.D., of twins (son and daughter).

LITHGOW.—On the 20th inst., at Stirling House, Farnborough, Hants, the wife of T. G. Lithgow, F.R.C.S.Ed., L.R.C.P.Lond., of a daughter.

NICHOLSON.—On the 15th inst., at 29, Albion-street, Hull, the wife of Frank Nicholson, M.D.Lond., of a daughter.

SYDNEY.—On the 19th inst., at Pownall-gardens, Hounslow, the wife of Henry Sydney, M.D., of a daughter.

MARRIAGES.

BROWN—CARTER.—On the 25th July, 1885, at St. Peter's Church, Melbourne, by the Rev. Canon Handfield, William Henry Brown, M.R.C.S.Eng. (late of University College, London, now of Rosedale, Gippsland, Victoria), to Geraldine, fourth daughter of H. R. P. Carter, Esq., of Madras, India.

DINNEN—WHITHAM.—On the 9th inst., at St. Leonards Parish Church, Padiham, Lancashire, by the Rev. J. A. M. Johnstone, M.A., Vicar, William Thomas Dinnen, L.K.Q.C.P.I. & M.R.C.S.Eng., of Holyhead, North Wales, only son of W. A. Dinnen, Esq., R.N., Chief Inspector of Machinery Afloat (retired), of Ffynnon-y-Gorlass, Holyhead, to Annie Elizabeth, third daughter of John Whitham, Esq., of The Banks, Padiham.

FISHBOURNE—KENDALL.—On the 15th inst., at Christ Church, Bexley-heath, Kent, Joseph Eustace Fishbourne, Surgeon-Major Medical Staff, to Edith Annie Brind, eldest daughter of Surgeon-General Hy. Kendall, M.D., A.M.D. (retired), of Renfrew, Bexley-heath, Kent.

FOX—MACDOUGALL.—On the 16th inst., at Jamestown, Ross-shire, N.B., Fortescue Fox, M.B.Lond., of Strathpeffer Spa, to Katharine Stewart, daughter of the Rev. W. S. Macdougall, Minister of the Free Church of Scotland, Jamestown.

FRAKES—BAGSHAW.—On the 1st inst., at Christ Church, Didsbury, by the Rev. Walter Thompson, Rector, Henry Sowter Frakes, L.R.C.P., M.R.C.S., of Hollyhyrst, Didsbury, to Fanny, second daughter of the late Joseph Bagshaw, of the Holme, Didsbury.

GORMAN—HENRY.—On the 23rd inst., at St. Mary's Church, Tenby, by the Rev. C. M. Phelps, assisted by the Rev. J. H. A. Griffiths, Charles Gorman, M.D., M.Ch., J.P., and District Surgeon of Knysna, Cape Colony, to Edith Charlotte Henry, third daughter of William Henry, Esq., of Wilford Bray, co. Dublin.

HAYES—WATERS.—On the 15th inst., at St. Mary of the Angels', Bayswater, Julian Philip Swindell Hayes, M.R.C.S.E., L.K.Q.C.P.I., Surgeon, A.M.D., son of Captain P. Hayes, late 83rd Regiment, to Edith Alexandra Virginia, only child of the late Captain I. J. Waters, R.N.R., and Mrs. Waters, of Cornwall-road, W.

PAGET—BURD.—On the 17th inst., at St. Mary's Church, Shrewsbury, Stephen Paget, F.R.C.S., of Wimpole-street, London, son of Sir James Paget, Bart., to Eleanor Mary, daughter of Edward Burd, M.D., of Newport House, Shrewsbury.

RACKHAM—WELLS.—On the 16th inst., at the Parish Church of Sco Ruston, Norfolk, Arthur Richard Rackham, M.R.C.S., L.R.C.P.Ed., of North Elmham, Norfolk, third son of Thomas Hanworth Rackham, Solicitor, of Old Catton, Norwich, to Julia Jupp, third daughter of Thomas Hayn Wells, of Sco Ruston.

STOKES—DYMOND.—On the 16th inst., at St. Nicholas' Church, Tooting Graveney, by the Rev. A. P. Doherty, M.A., Vicar of Oakridge, Stroud, and the Rev. E. H. Morton, M.A., Rector, Francis A. Stokes, L.R.C.P.Lond., M.R.C.S.Eng., of Rose-park Lodge, Upper Tooting (second son of Dr. Stokes, of Highbury), to Edith, only daughter of John Neate Dymond, of Manor Lodge, Tooting Graveney.

DEATHS.

BROWN.—On the 8th August, 1885, at Rosedale, Gippsland, Victoria, after six days' illness, of acute pneumonia, Geraldine, the beloved wife of William Henry Brown, M.R.C.S.E., late of University College, London, aged 19.

BROWN.—On the 22nd inst., at his residence, 20, Foregate-street, Worcester, Henry J. Brown, F.R.C.S.Eng., late of 1, Wilmington-square, London, aged 66.

FLEMING.—On the 13th inst., at Grantown, J. G. Fleming, M.B., C.M.Aber.

FRASER.—On the 20th inst., at Woodside Villas, Victoria-road, Gipsy-hill, James Alexander Fraser, M.D., Inspector-General, Army Medical Department (retired), aged 70.

N.B.—*A fee of 3s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, Sept. 24th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Sept. 18	30·03	N.E.	54	54	77	63	53	...	Overcast
" 19	30·01	S.W.	56	54	70	60	52	·03	Raining
" 20	30·19	S.W.	55	52	102	67	48	·10	Cloudy
" 21	30·21	N.	59	55	107	66	54	·03	Cloudy
" 22	30·36	W.	56	54	100	71	50	...	Foggy
" 23	30·21	W.	62	60	98	68	55	...	Cloudy
" 24	30·10	N.	52	49	94	58	49	·15	Fine

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

FEMALE PHARMACISTS.

THE *Enciclopedia* of Havana states that three Cuban young ladies have been studying pharmacy in New York, and that they have recently opened a pharmacy in one of the most select localities in that city. These are, according to our contemporary, the first instances in the United States of pharmacists belonging to the gentler sex.

Mal de Mer.—Nitro-glycerine and hydrochlorate of cocaine have proved efficacious in many instances.

THE POLLUTION OF THE WEY.

To the Editor of THE LANCET.

SIR,—In an annotation in your issue of to-day the writer states that at the mouth of the Wey he found, on a recent inspection, the water coming through the lock black and dirty and having a bad smell, caused, as he believes, by factories; and he goes on to ask, "Do these factories send their sewage into the river?" The question is very readily answered. If he will take a boat at the bridge at the bottom of High-street, Guildford, as I did yesterday, and pull a few hundred yards down the Wey, he will have ocular, olfactory, and even auricular, evidence of the pollution of that stream. There is continuous pollution flowing from about half a dozen drains from the brewery (I believe it is) just below the bridge, and lower down similar nuisances are conspicuous. In a pull of about a mile I picked up two large perch, I may presume poisoned. Is it credible that such a state of things can exist under the very eyes of an urban sanitary authority? One naturally inquires, What is the value of all the sanitary legislation of the last ten years if these things are permitted? I am, Sir, yours faithfully,

Weybridge, Sept. 19th, 1885. G. S.

THE MILITIA MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—When the Militia Medical Department was proposed, it was stated that those who did not enter the Department would receive none of the advantages it was supposed it would confer. From the subjoined it would seem that the advantages are for the outsiders. Can you explain this?

NEW REGULATIONS, MEDICAL DEPARTMENT, 1885.

"Militia medical officers not on the Departmental List, if employed to attend troops during the embodiment of the regiment, will be paid for such attendance at contract rates [the rate is £10 for every twenty-five men per annum] even when drawing the full pay as Militia surgeons, and in addition to their full pay."—Part 5, Section 1, Paragraph 908.

So that a Departmental man in charge of 600 men of the Militia and 600 men of other corps would receive his ordinary pay, while a non-Departmental man in charge of the same number of men would get £240 in addition to his pay per annum.

I am, Sir, your obedient servant,

Sept. 21st, 1885. DEPARTMENT.

THE WATER-SUPPLY IN SPANISH TOWNS.

IN reference to the remark in THE LANCET of Sept. 5th, that only three towns in Spain have a water-supply worthy the name—viz., Madrid, Seville, and Barcelona—*Mr. Clarence Visick*, of Malaga, writes:—

"Malaga and Jerez are also well supplied. Malaga for the last ten years has had a water-supply far superior to anything in Spain, and probably better than that of any town in England. Apart from the excellent quality of the water and its unvarying abundance, the mode of delivery is the very best possible, there being no open channels and no reservoirs. ..... The existence of enormous tracts of mountainous country, free from all population, that are to be met with in most provinces of Spain ensure a condition of purity in the springs taking their origin in these mountains that cannot be hoped for in thickly-populated England. I believe that had the authorities in Granada, and of dozens of other towns now decimated by cholera, taken advantage of the natural springs of pure water in their neighbourhood, in the same way that Malaga has, they would probably have enjoyed the same comparative immunity from this awful pestilence. ..... Malaga by private subscription has made ample provision for its defence should anything like an epidemic attack her. Two cholera hospitals are prepared, a thousand meals are daily distributed to the poor, and the crowded parts of the town are visited by a committee, who administer the funds for relief or for sanitary measures. In public spirit Malaga shows a remarkable contrast to Granada, whose authorities and chief inhabitants simply allowed the people to rot. How often there the cries for help have rang through the night, and there has been no answer, the poor sufferers being found dead in the balconies next day! Up to the present time the whole Malaga district has had only twelve deaths with suspicious symptoms. One case was that of a gentleman who rode direct from Gibraltar and was taken ill and died the day after his arrival here. As he had just arrived from England, he must have caught the disease by drinking the Gibraltar water. Our mortality here is fourteen deaths daily from all causes, which is the usual high rate, children giving two-thirds of the mortality."

A Governor.—The physician has undoubtedly just cause of complaint that the arrangement was carried out without an opportunity being afforded him of expressing his objection to it.

THE RISBRIDGE UNION AND THEIR MEDICAL OFFICERS.

To the Editor of THE LANCET.

SIR,—It will be seen that the guardians of the Risbridge Union in Suffolk are again advertising for a Medical Officer for their fourth district, the present officer having held the post for the past two or three months only. He has now resigned because there is another surgeon residing in the district, and there are several others also practising in it, and therefore no prospect of establishing a general practice for himself. The district is entirely agricultural, and has but few resident farmers, owing to the prevalent depression. The labourers do not earn more than from 10*s.* to 12*s.* per week, and the medical clubs are attended by the neighbouring practitioners. The salary now paid by the Board is double what it was before, but even with this increase the retiring officer is unable to keep the one or two horses necessary to cover the area of the seven parishes.

It would certainly be prudent for any gentleman who may contemplate applying for the appointment to make some inquiry of the retiring officer, and also in the district, as to the opportunities of extending his professional labours. My sole object in writing is to advise intending applicants to be wary lest they incur a disappointment similar to that experienced by the present officer.

I am, Sir, yours obediently,

Sept. 22nd, 1885. CAVEAT EMPTOR.

IODIDE OF POTASSIUM AND IMPOTENCY.

DR. JOSÉ ARMANGUÉ, of the Barcelona Faculty of Medicine, writes in the *Independencia Médica* an account of two cases in which he believes a prolonged use of iodide of potassium produced impotency. Both had had syphilis several years before, and had taken large quantities of iodide. The treatment, which was pursued with considerable success in both cases, consisted mainly of stopping the drug, together with cold affusion, electricity, and nux vomica, ergotine, musk, jaborandi, and valerianate of quinine.

FRIENDLY SOCIETIES' MEDICAL INSTITUTIONS.

To the Editor of THE LANCET.

SIR,—I shall be pleased to know the opinions of brother medical officers in these institutions of the following suggestion for improving our position. It is that all fees subscribed by members for medical attendance, &c., be received wholly by the doctor, and not by the committee. The latter take the fees, give the doctor a small portion as his salary, and keep the remainder. If members increase in number, our salaries do not increase, and what is not spent in expenses does not come to our pockets. We should take a leaf out of the book of management of such places, and unite to protect our own interests. I do not think members will object to such a movement, as it will give medical men a greater interest in their work, and thus be better for patients; therefore success may not be difficult to gain. I am, Sir, yours truly,

Sept. 21st, 1885. FAIRPLAY.

CONTRACT BETWEEN A MEDICAL MAN AND A PATIENT IN A COMPENSATION CASE.

IN the case of a contract between a medical man and his patient, to the effect that the former should be remunerated in proportion to the sum obtained through his representations as compensation for an injury from a railway company, the Michigan Supreme Court decided that the contract was null and void; for here "the physician" (we reproduce the quotation from the *Philadelphia Medical Times*) "puts himself in a position where both parties are expected to rely on him and to act on what he says. When under such circumstances he makes the disclosure of his knowledge and opinions the subject of a contract, whereby his compensation is to depend on the amount obtained by his employer by reason of the disclosures, it is plain that he puts himself in a position where it is his interest to exaggerate. ..... And however honest a man's actual intentions may be, and however truthful he may be, there is a temptation to misrepresent, and a direct danger that the misrepresentation will operate injuriously to the parties dealt with."

Rabies.—1. In the *Times of India*, about February last, appeared a letter from M. Nursimula, narrating a case having all the symptoms of hydrophobia, in which treatment by a subcutaneous injection of a sixteenth of a grain of atropia was successful.—2. No.

Mr. P. B. Stoney.—Yes, decidedly.

STYPTICS OR DEPRESSANTS IN THE TREATMENT OF HÆMOPTYSIS.

To the Editor of THE LANCET.

SIR,—Mr. W. Henry Kesteven will perhaps be interested to learn that the treatment of my consumptive patients, when attacked by hæmoptysis, for the last twenty-five years, at the Hampstead Consumption Hospital, has always been one-sixteenth of a grain of tartrate of antimony in a saline draught every hour or every two hours. If from the profuseness of the discharge, or on account of the anxiety of the patient, it is judged necessary to produce an immediate effect, forty minims of rectified spirits of turpentine are given every two hours in a wineglass of water. Except in hæmoptysis from the bursting of a small aneurysm, which is almost immediately fatal, the above treatment is most successful.—I am, Sir, yours obediently,

GODWIN TIMMS, M.D. Lond.,
Senior Physician to the North London Consumption Hospital.

Sept. 21st, 1885.

To the Editor of THE LANCET.

SIR,—I was much interested in the paper by Dr. Henry Kesteven on the treatment of hæmoptysis. I have recently had a severe case under my care, in which both methods of treatment were tried. The following may be of interest.

A young man, aged twenty-five, a labourer at one of the mills in the neighbourhood, came to my surgery for advice. He said he had just expectorated about two tablespoonfuls of blood while employed in carrying some heavy sacks. He felt something give way in his chest, and bleeding followed. I ordered him to go home and rest quietly in bed, and gave him a mixture containing mineral acids; I also told him to drink cold water freely. There was no further hæmorrhage until a week afterwards, when I was called suddenly to see him, he having had a recurrence of the bleeding. I found the patient in a critical condition. He had lost a quantity of blood, and it was still gushing from him at intervals. I administered three doses of ergot at intervals of fifteen minutes: this controlled the hæmorrhage, and gave time to think what was best to be done. Anxious to try ipecacuanha, I gave a full dose combined with opium. Instead of stopping the bleeding, it came on much worse. The patient was very sick, and became so exhausted that I thought he must die. I did not administer a second dose. Ice was sent for, and a poultice made of it and laid over the chest. The patient sucked small lumps constantly, and I sent him the following mixture:—Tannic acid, two drachms; dilute sulphuric acid, two drachms; solution of extract of ergot, three drachms; glycerine, one ounce; spirit of chloroform, two drachms; infusion of calumba to eight ounces; an ounce every two hours. The hæmorrhage rapidly ceased. After a week's intermission, however, it recurred, but not so violently. By increasing the frequency of the dose it was again controlled, and finally stopped after two or three slight attacks. It is now three months since the last bleeding, and the patient is quite well and strong. During recovery there was a good deal of mucus formed and expectorated; but by the administration of chloride of ammonium and tincture of iodine this all subsided.

I cannot see any argument in favour of such a drug as ipecacuanha in cases of this kind. It certainly acts as a depressant; but how will a depressant stop a hæmorrhage? Given a broken bloodvessel; a depressant is administered, the blood circulates more slowly, but nothing happens to prevent its escape through the leakage. Now, astringents, in my opinion, act more rationally. Tannin, for instance, constringes both the small and large bloodvessels, and also increases the fibrin of the blood; ergot also narrows the calibre of the arteries, and the two drugs together act in a physiological manner. These drugs together, with the aid of ice, are powerful agents in the hands of a physician in the treatment of hæmoptysis. I myself would never again try ipecacuanha.

I am, Sir, yours truly,

Beaconsfield, Sept. 5th, 1885. FRED. W. ALLWRIGHT, L.R.C.S.I., &c.

VICTORIA UNIVERSITY.

THE Registrar of the Victoria University writes to inform us that by the paragraph in the notice respecting this institution which appeared in our recent Students' Number relating to the Special Regulation as to Qualified Medical Practitioners much trouble has been caused, a number of gentlemen in practice having concluded that they can obtain the M.B. degree by examination only. We distinctly stated that the entrance examination in Arts, or the preliminary examination in Science, would be dispensed with, provided that *all other* requirements for admission to the Intermediate and Final examinations have been duly complied with; and in another paragraph we stated that candidates for the degree of Bachelor of Medicine must, amongst other requirements, have pursued their medical studies for at least two years in a college of the University. Whilst repudiating all responsibility for the trouble which has been caused to the Registrar by the number of his correspondents, we, at his request, again publish the Special Regulation as to Qualified Medical Practitioners. It is as follows:—

"*Note.*—At least two years' attendance upon lectures in a College of the University is prescribed by the Charter, and is therefore indispensable. Such attendance must include at least two courses of lectures (or one course and hospital practice) in each session of those years. The winter session is six months, the summer session three months. Particulars as to attendance and subjects for the above examinations may be obtained from the Registrar."

A First-Year's Student.—If our correspondent cannot pass in Chemistry and Materia Medica together at the end of July, he can take either of them then, and pass in the other in October. The length of the July pass-list shows that passing in both subjects cannot be so difficult as he represents.

Mr. Joseph Saul (Bowness) should ask the writer of the article to make the correction.

"WRIST-DROP."

To the Editor of THE LANCET.

SIR,—I would recommend "Inquirens" to support the hand by a splint, and to continue unremittingly the use of galvanism, rather with the object of preventing atrophy than of curing the complaint. The wrist may be immersed in a galvanic bath. Topical baths of the sulphuret of potassium, and a small circular blister on the back of the wrist, to be sprinkled with one-twelfth of a grain of strychnia, may also be tried, and, combined with the usual remedies for lead-poisoning, will probably prove effectual; but the affection is often very obstinate, and baffles all treatment. Query: As only one wrist appears to be affected, is it really due to lead? May it not be allied to scrivener's palsy, and due to the excessive use of the brush?

I am, Sir, yours obediently,

Hastings, Sept. 22nd, 1885. J. REEVE SHORTO, M.R.C.S. Eng.

SHOULD COWS BE MILKED TWICE OR THRICE A DAY?

A GERMAN observer has found that cows milked three times a day give much more milk than when milked twice only, and the proportion of fat is the same in both cases.

Dr. Collins must see that a reform of the Senate and a complete revision of the existing regulations are the chief reasons for the present agitation.

THE COMMUNION CUP.

To the Editor of THE LANCET.

SIR,—*A propos* of your remarks on infected ice creams in your last issue, a question has occurred to me. Are we not running a similar risk—though perhaps a less one—in the present mode of administering the Holy Communion? Is the slight turn of the cup which communicants may be observed to make not indicative of a suspicion of danger in the public mind? Might not a gentle wiping of the rim of the cup by means of a clean white napkin be introduced?

I remain, Sir, yours truly,

Sept. 22nd, 1885. MEDICAL OFFICER OF HEALTH.

*** The practice suggested by our correspondent is, we believe, in vogue amongst certain religious communities.—ED. L.

A DISCLAIMER.

To the Editor of THE LANCET.

SIR,—As anyone reading the annotation headed "The Value of Registration," in your issue of the 19th inst., might infer that I was the medical man who wrote the prescription quoted, will you allow me to state that I was in no way responsible for the case, as it occurred during my absence from London, and I attended the inquest merely as the representative of the hospital. I may say also that I was not correctly reported, as I did not at all intend to convey the impression that I approved of the principle of omitting the name and age of a patient from the prescription papers.

Apologising for troubling you on a personal matter,

I am, Sir, your obedient servant,

WALTER T. STRUGNELL,

Sept. 20th, 1885. House Surgeon, Great Northern Hospital.

AN APPEAL.

THE sad and untimely death of Dr. A. F. Graham of Liverpool has left his young family of four children without any provision for their maintenance and advancement in life. A committee has been formed with a view of raising a fund to place them, as far as possible, in a position to maintain themselves. Dr. Graham was so much respected and so highly esteemed by all who knew him, that the committee hope to receive a very generous response to their appeal. About £300 have already been promised, but a considerable sum is still required to enable the committee to carry out the objects which they have in view. Subscriptions may be sent to the hon. treasurer, Rev. Robert Irving, M.A., 21, Ivanhoe-road, Sefton-park, Liverpool; or to the hon. secretary, James Barr, M.D., 1, St. Domingo-grove, Liverpool.

Mr. C. Lamminan (Tunbridge Wells).—We shall be happy to receive the papers.

B.—We do not prescribe.

THE CENTENARY OF DIGITALIS.—ARMY SURGEONS.

To the Editor of THE LANCET.

SIR,—With regard to the annotations or other allusions to these topics that have appeared in recent issues of THE LANCET, will you allow me to say that some very interesting particulars bearing on the efficacy of digitalis in the treatment of hydrothorax are given in connexion with a strikingly illustrative case in point in the Autobiography of Sir James M'Grigor, pp. 213-14. I regret that for want of this book I am just now unable to reproduce them; but foxglove has been employed as a diuretic from time immemorial, even among savages, and I think it is mentioned in this connexion by Dioscorides.

Concerning army surgeons, there occurs in a rare book called "Londiniana, or Reminiscences of the British Metropolis," vol. ii., pp. 33-9, a suggestive story of a certain surgeon (!) who would appear to have been sent from the Marshalsea, in which he was confined at the time, to the Siege of Montreuil. His incapacity, however, became so apparent as to attract public attention to him, and force the Duke of Norfolk, the General-in-Chief, "to appoint a Commission to examine the medical department on the spot." One of the Commissioners—John Gale—has, according to this writer, given, in his "Office of a Chirurgeon," the ensuing curious result of this inquiry:—"We found many," says he, "who took upon them the names of surgeons and the wages also. We demanded of them with whom they were brought up. They with shameless faces would answer one cunning man or another that was dead. We then demanded what chirurgery stuff they had to cure men with. And they would show us a pot or a box which they had in a budget, wherein there was such trumpery as they did use to grease hors es' heels with; and others that were cobblers and tinkers they used shoemakers' wax, with the rust of old pans, and made therewithal a 'noble salve,' as they did term it. On being threatened to be hanged..... except they would declare the truth, what they were, &c.," they "in the end did confess.....that some were sow-gelders, some horse-gelders, with tinkers and cobblers."

What a change—social, professional, pecuniary, and otherwise—do these few pregnant sentences imply! They show, on the one hand, a vast change, amounting almost to a transformation, in the apparatus, establishment, and surroundings of the military surgeon of the period. They show a still greater elevation or enlargement, if not, indeed, an absolute glorification, of that erewhile despised or discredited operation—the operation of "gelding." It is true, indeed, that the "gelders" of these days do not carry about with them, in a "budget" or otherwise, such "trumpery" as is contemplated above. They prefer a Gladstone bag or a mail-phaeton for that; and the fact that abdominal surgery, of which we hear so much nowadays, was only a few years since almost, if not entirely, restricted to this simple process, ought to serve as an augury, as well as an inspiration, towards further triumphs in the same quarter in the near future.

I am, Sir, your obedient servant,

Auriol-road, W., Sept. 9th, 1885. WM. CURRAN.

THE BRADLEY FUND.

To the Editor of THE LANCET.

SIR,—I beg to forward a further list of subscriptions towards the above fund. Will you kindly allow it to appear in the next issue of your journal. I remain, Sir, yours faithfully,

Eastwood House, Chesterfield, Sept. 23rd, 1885. RICHARD JEFFREYS.

Dr. A. Halliday Douglass..	£2	2	0	Mr. J. H. Ewart	£1	1	0
Dr. Geo. Pearce	1	1	0	Mr. A. E. Barker	1	1	0
Dr. W. Yawdrey Lush ...	1	1	0	Mr. Samuel Lodge ...	0	10	6
Mr. T. Jenner Verral ...	1	1	0	Mr. W. H. Beverley ...	0	10	0
Mr. H. Greenway Howse	1	1	0	Dr. Chas. W. Cathcart ...	0	5	0
Dr. Edwin Rayner ...	1	1	0	Dr. A. Sloane	0	5	0
Mr. T. Sympson	1	1	0				

"RAPID PASSAGE OF A COIN THROUGH THE ALIMENTARY CANAL."

To the Editor of THE LANCET.

SIR,—The greater rapidity with which Mr. Sellick's patient passed the coin may perhaps be accounted for by the difference in size and weight of the two coins. Mr. Sellick's patient swallowed a farthing; mine a halfpenny. I am, Sir, yours faithfully,

Everton, Sept. 7th, 1885. CHAS. J. R. LAWDAY.

THE DIAGNOSIS OF SCARLET FEVER.

THE practitioner is often called upon to determine whether a patient suffering from sore-throat and an erythematous rash is or is not the subject of scarlet fever. Particularly is the suspicion raised if within a certain space of time there happens to have been scarlet fever in the house. A correspondent—"E. C. F."—sends us details of such a case, where, upon the sole strength of the statement that three months before there had been a case of scarlet fever in the same house, the transient attack in question was declared to be that disease, and this, too, after all ocular evidence of the eruption had disappeared. Now, although it is notorious that the scarlatinal virus may retain its power for a long time, we venture to think that, for the sake of accuracy and for the saving of much disquiet, it would be well to bear in mind that a transient erythema may accompany sore-throat—especially, as in this case, without any pyrexial indications—apart from scarlatinal infection. Our correspondent informs us that the rooms had been thoroughly disinfected, and every precaution taken when the fever case occurred three months previously, whilst, apart from the two symptoms mentioned, the second patient had no other indication at all of scarlatina. The fact that there was not the least rise of temperature, and the further fact that the patient was liable to attacks of sore-throat, fully justify the position he took up from the first.

Enquirer.—There is reason for suspecting that the infection of milk with typhoid poison may be due to some condition of the cow; but the evidence does not go beyond suspicion, and there is no positive information that the drinking of such water as that described by our correspondent would produce disease in the cow. Again, there is no positive information that milk standing in a dairy which smells from drains would become infected with typhoid poison. There is much reason for believing that the boiling of milk will destroy infection, although this process cannot be regarded as an absolute safeguard in all cases. Cream and butter made from infected milk would be undoubtedly dangerous. We would strongly recommend our correspondent to at once consult a competent expert.

THE DISAPPEARANCE OF BIRDS FROM CHOLERA DISTRICTS.

To the Editor of THE LANCET.

SIR,—In your issue of Sept. 19th, page 553, your Paris correspondent notes the sudden disappearance of swallows from the neighbourhood of Toulon the day before the outbreak of cholera. Similar facts have been noted by other observers. In 1879 Lieut.-Col. Kauntrie, Bengal Cavalry, who was travelling in the Hardwur district in India at the time of the epidemic of cholera amongst the pilgrims at the great Kumbh Mela, or duodecennial fair, informed me that he noted that, although great numbers of corpses were lying unburied about the neighbourhood, yet all the carrion-eating birds had disappeared.

I am, Sir, yours faithfully,

SHIRLEY DEAKIN, S.Sc.C.C.,
Sept. 21st, 1885. Surgeon, I.M.S.

B (Bacup).—If the medical officer of health lives within the district of the vacant Poor-Law appointment, he has a perfect right to compete for it and hold both appointments, unless his health officership debars him from private practice. As regards the second query, C can, if elected, hold both appointments.

AUSTRALIAN MEDICAL APPOINTMENTS.

To the Editor of THE LANCET.

SIR,—Can any of your many readers give me information concerning (1) the nature of the medical appointments to be obtained in New South Wales, Victoria, or South Australia; (2) if they are more remunerative than the ordinary union or club appointments in England; (3) whether there is much competition for them; and (4) if a man upwards of forty years of age, going out to either of these colonies, would have a good chance to obtain an appointment as a start? I refer chiefly to the larger towns, for in the purely country districts work of this nature would hardly pay, unless it be at a much higher rate than in England, for the distances would be far greater.

I am, Sir, yours faithfully,

Sept. 22nd, 1885. OLD SUBSCRIBER.

AN ABNORMAL HEN'S EGG.

To the Editor of THE LANCET.

SIR,—At the tea-table an egg was taken by a guest, who on opening it found within the yelk a small misshapen egg about an inch and a half in length. It was not oval in form, but curved irregularly, like a diminutive broad-bean pod. The outer egg (a cochin's) was of good size, perfectly fresh laid, and it had been noticed when brought in from the nest to be itself of somewhat irregular outline. The inner one has a hard shell, and is now in my possession, unbroken. Everything inside the larger egg appeared normal after boiling. Could any of your readers inform me whether this is entirely phenomenal, or explain the existence of one egg inside another?—I am, Sir, yours obediently,

Sheffield, Sept. 21st, 1885. MEDICAL STUDENT.

ERRATUM.—In the fourth line of our leading article on "The Thames as Cesspool" last week, page 529, for "1844" read *1884*.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Shirley Deakin; Mr. Noble Smith, London; Dr. Edge, Manchester; Dr. S. West, London; Mr. Henry Fenwick, London; Dr. Finlay, London; Dr. Wilks, London; Mr. J. M. Clarke, Manchester; Dr. De H. Hall, London; Dr. Haig, London; Mr. Shorto, Hastings; Dr. C. Pope, London; Mr. Burgess, Litcham; Dr. Barr, Liverpool; Dr. Suckling, Birmingham; Dr. Underwood, Foochow; Mr. Jeffreys, Chesterfield; Mr. Hodges, London; Mr. Strugnell, London; Mr. A. Bentley, Manchester; Mr. E. O. Day, London; Mr. F. R. Conder, London; Mr. J. Saul, Bowness; Mr. O'Callaghan, Mortimer; Messrs. Meggeson and Co., London; Mr. Woodcock, Wigan; Mr. H. C. Burdett; Mr. C. J. Denny, Blackwater; Dr. Moir, Fort William; Mr. G. E. Walker, Liverpool; Mr. Morley, Birmingham; Mr. Hankey, Bexley; Dr. J. Harley, Uckfield; Dr. Champneys, London; Dr. Saundby, Birmingham; Mr. R. W. Parker, London; Mr. Maude, Barnsley; Mr. W. W. Myers, Takow; Dr. G. Thompson, Stapleton; Mr. Garstang, Knutsford; Dr. Cobbold, London; Mr. Laffan, Larnaca; Mr. Zlatano, Manchester; Mr. Moore, Wigton; Messrs. Fannin and Co., Dublin; Surgeon-Major Myers, London; Mr. Atkinson, London; Dr. Douglas, Perth; Mr. Bernascorri, Plymouth; Mr. Mercier; Messrs. Beal and Co., Brighton; Dr. Toepletz, Breslau; Messrs. Murray and Co., London; Mr. Bur[illegible]; Mr. Brailswood; Mr. Brockelbank, Worcester; Mrs. [illegible] Colne; Mrs. Bourchier, Sheffield; Mr. Lilly, Milford [illegible], [illegible]ce, Notts.; Messrs. Bell and Bradfute, Edinburgh; Dr. Whitla; Messrs. McKeaver and Son; Mr. Brownson, Hyde; Mrs. Goring; Mr. Wills, Newton Abbott; Messrs. Crossley and Co., London; Messrs. Benson and Co., London; Messrs. Griffin and Co., London; Mr. Walsh, Bicester; Messrs. Dawson and Sons, Montreal; Messrs. Debenham and Towson, London; Mr. Townsend, Exeter; Mr. Robinson, Stockton; Mr. Willowby; Messrs. Christy and Co., London; Mr. Pinchard, Taunton; Mr. Bigmore; Dr. Juler, London; Mr. Herne, Oldham; Dr. Fenwick, London; Messrs. Maw and Co., London; Mr. Petter, Yeovil; Mr. Durham; Mr. Walker, Liverpool; Mr. Scotter, Ketton Lindsey; Messrs. Shelley and Co., London; Messrs. Waite and Co.; Mr. Brandon, London; Mr. R. Watson, London; Madame Moore, Lago; Mr. Carter, Preston; S.A.P.; Student; Glycocoll; E. C. F.; G. S.; S. J. R.; Medicus, Brighton; H. W. M.; A. N., Chiswick; B. X. G.; S. L., Burnley; Caveat Emptor; R. N.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Trake; Mr. Taylor, Sheffield; Mr. Lockwood; Mr. Bains, Bushey; Dr. Fox, Strathpeffer; Mr. Laban, W. Bromwich; Dr. Saunders; Mrs. Bell, Christchurch; Mr. Nicholson, Hull; Dr. Tanner, Bicester; Mr. Hill, Roborough; Mr. Oxley, London; Mr. Marrett, Wisbech; Mr. Mason, Highbury; Mr. Pate, Elmsley; Miss Rimel, Folkestone; Mr. Roe, Patricroft; Mr. Hall, Dalton-in-Furness; Mr. Hordley, Stoke-on-Trent; Mr. Harcourt, London; Dr. Newland; Messrs. Burgess and Co., London; Mr. Miles, London; Mr. Stokes; Mr. Dinnen, Holyhead; Mr. Schafer; Mr. Midhurst, Hampstead; Mr. Sumner, Birmingham; Mr. Leach, Tenby; Mr. Thomas, London; Dr. McArthur, Langwith; Mr. Witten, Brighton; Mr. Shand; Messrs. Maguire and Co., Dublin; Mr. Heywood, Manchester; Mr. H. Brown, London; Dispenser; E. G., Eccles; W., St. Columb; Forceps, Walsall; M.D., Manchester; M.R.C.S., Manchester; Surgeon, Edinburgh; R. F. G., Whitby; Medicus, Edinburgh; Medicus, Redhill; Locum Tenens, Birkenhead; C. A. H., West Kensington; Medicus, Ipswich; M.A., Aberdeen; Alpha, Leicester; Surgeon, Carrington; A. O., Glasgow; F.S.A., Wye; T. B. W., Sheffield; Fidelis, Exeter; A. B., Regent's-park; Undergraduate; Medicus, Canterbury; Detmar; Medicus, Fulham-road; A. H. Cheltenham.

Jarrow Guardian, Leeds Daily News, Alnwick and County Gazette, Gil Blas, Aberdeen Daily Free Press, Liverpool Courier, Perthshire Constitutional, Charity Organisation Review, &c., have been received.

Medical Diary for the ensuing Week.

Monday, September 28.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M. Also on Thursdays at 2 P.M.

Tuesday, September 29.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Wednesday, September 30.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.

Thursday, October 1.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Friday, October 2.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—8 P.M. Mr. Percy Dunn: Pathological Specimens—(1) Liver of Child of eight years (extensive rupture of left lobe); (2) Right Kidney (large calculus in pelvis); (3) Sarcoma of Mamma.—Mr. Keetley: Clinical Cases—(1) Extroversion of Bladder (after operation); (2) Case illustrating New Mode of Amputation for Ulceration of Leg; (3) Congenital Dislocation of Hip; (4) Charcot's Joint Disease, &c.—Address by the President, Mr. W. B. Hemming.—Dr. Clippingdale: Case of Stricture of Small Intestine (with specimen).

Saturday, October 3.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
MIDDLESEX HOSPITAL.—Operations, 2 P.M.

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